

**BCI Ex. 357**

**UNITED STATES BANKRUPTCY COURT  
SOUTHERN DISTRICT OF NEW YORK**

In re

LEHMAN BROTHERS HOLDINGS INC., *et al.*,

Debtors.

Chapter 11 Case No.  
08-13555 (JMP)  
(Jointly Administered)

In re

LEHMAN BROTHERS INC.,

Debtor.

Case No. 08-01420 (JMP)

**DECLARATION OF GARY ROMAIN**

I, Gary Romain, declare as follows:

1. I submit this affidavit in support of Barclays' Opposition to the Rule 60 motions filed by the Debtor, the SIPC Trustee, and the Official Committee of Unsecured Creditors ("the Committee").

2. This affidavit explains the process of attempting to formulate the acquisition balance sheet for the Barclays acquisition of Lehman's North American broker-dealer business, and also explains the negative goodwill number ultimately reported by Barclays in the acquisition balance sheet reported in February 2009.

3. During the week of September 15, 2008, I was in New York and involved in attempting to formulate estimates for the acquisition balance sheet for the Barclays acquisition of the Lehman North American broker-dealer and investment banking business. I attempted to formulate these estimated balance sheets based upon information

BCI Exhibit No.

**357**

provided to me by business representatives involved in the transaction, principally Stephen King.

4. The process of estimating the acquisition balance sheet was filled with guesswork and approximations, and involved constantly changing inputs. Prior to the closing, it was in my view never completely certain that the transaction necessarily would generate negative goodwill, and certainly was never certain what the amount of such negative goodwill might be. Indeed, it took several months after the closing to complete a proper valuation and accounting for all of the assets acquired in the deal, and it was not until that work was complete that we could arrive at a fair level of confidence as to what the value of the acquired assets really was, and what the negative goodwill number really was.

5. It was never my understanding that we would account for assets using the carrying values for those assets on the Lehman books. Rather, my understanding was that we would recognise assets at fair value in accordance with our own accounting and valuation methodologies. This would require the relevant business teams to perform a valuation of the acquired financial assets, which is then verified by our Product Control Group ("PCG"). This process ended up taking several months after the acquisition, because many of the assets we acquired were illiquid assets, such as structured financial products, which took significant time to value accurately.

6. During the negotiations of the original Asset Purchase Agreement ("APA") over the days of September 15 and 16, I received information regarding the assets that were expected at that point to be included in the transaction. The information I received showed that our business teams believed the financial inventory was worth less

than the carrying value on the Lehman books. In formulating my initial estimates of the acquisition accounting and potential negative goodwill number, I used the fair value estimates of our risk managers, not the higher carrying value for those assets on the Lehman books. It was never my understanding or expectation that Barclays would "mark up" the assets to the carrying value on the Lehman books.

7. This can be seen in an initial calculation I performed during the middle of the night between September 15 and 16, 2008, which was e mailed by me (using Tom McCosker's e mail account) to a number of Barclays finance professionals (in a document carrying Bates number BCI-EX-(S)-00023761). In that calculation, it was noted that there was approximately a \$3.5 billion "valuation adjustment" from the "carrying amount" (which may have reflected the carrying amount as of some date on the Lehman books) for the financial inventory that was at that point understood be part of the acquisition – from approximately \$64 billion to approximately \$60.5 billion. As shown in that document, my calculations of the potential acquisition balance sheet and potential negative goodwill number therefore used \$60.5 billion as the estimate for the value of this inventory on our balance sheet, not the higher "carrying amount".

8. The difference between the "carrying amount" and the amount our business teams believed to be the fair value of the assets was not a "discount" from fair value. If there was any adjustment from the carrying amount, it is my understanding that reflected the fact that our business teams believed the carrying amounts were too high (either because the Lehman marks had not been updated or for any other reason, including legitimate differences of opinion regarding the value of certain illiquid assets included in the financial inventory).

9. I do not recall any discussion in connection with the Barclays-Lehman acquisition of a \$5 billion discount. I was never told that Barclays would be able to record negative goodwill in the transaction by virtue of our ability to recognise the financial inventory at \$5 billion higher than the amount estimated to be the value of the assets in the negotiations with Lehman.

10. I have reviewed the "Board discussion materials" entitled "Project Long Island," and dated as of September, 2008. I understand these materials were prepared for and presented to the board of directors of Barclays in order to obtain approval for the Lehman acquisition. The information included in these materials was later revised in a number of respects. For example, the numbers in the board materials refer to Barclays receiving \$6.5 billion of mortgage assets. The APA's definition of Long Positions does not include any amount for mortgage securities, and therefore it is not an appropriate comparison to compare the APA's estimated value of \$70 billion for the Long Positions with the \$75 billion in the Barclays board deck. Indeed, for this comparison to make sense, it would seem necessary to extract out the mortgages from the board deck, which would result in a total asset value estimate of less than \$70 billion. Thus, as with all of the other initial attempts to summarise the financial inventory being acquired in the sale, the "Board discussion materials" represented an initial estimate that was subsequently revised in significant respects.

11. By Friday, September 19, 2008, I became aware that Barclays had engaged in a transaction to replace the "repo" loan of the Federal Reserve Bank of New York ("New York Fed"), and that under this transaction Barclays had advanced \$45 billion in cash to Lehman, and had received securities as "repo collateral" in exchange.

At around the same time, I learned that the financial inventory being acquired in the deal was going to include the repo collateral as well as certain other assets that were to be documented in a letter agreement, and that the initial inventory that had been discussed and estimated at the beginning of the week was not available to transfer in the amounts originally discussed. During the weekend of September 20-22, 2008, I began to receive information regarding the estimated values of the repo collateral and other assets Barclays was acquiring in the transaction.

12. The securities in the repo collateral included many assets that had not yet been reviewed by Barclays risk managers, and that carried "marks" from either Lehman or one of the custodian banks involved in the repo transaction -- JP Morgan Chase ("JPM") or Bank of New York Mellon ("BNYM"). Many of these assets were illiquid and did not have readily obtainable trading values. Thus, in making initial estimates for the acquisition balance sheet at and around the time of the closing, I would provide the "marked" value of the inventory (as marked by the repo custodian banks), as well as an estimated "valuation adjustment" to show the rough estimate regarding the likely need to write down these assets. These were very preliminary estimates, however, and did not reflect the proper valuation work that would subsequently be performed by the business teams and verified by PCG.

13. After the closing, the process of finalising this acquisition balance sheet was very time consuming and prolonged. The complexity of the transaction, the illiquid nature of many of the securities, and the fact that Barclays had poor information regarding many of the assets in the deal made it difficult to finalise the acquisition balance sheet for several months. For example, it took months for Barclays to determine

the identity and value of all of the assets associated with the exchange-traded derivatives accounts it had acquired. Similarly, it was not until December 2008 that Barclays resolved its dispute with JP Morgan and LBI over the \$7 billion shortfall in the repo transaction. In addition, throughout this time period, I received information and updates from the business teams and PCG professionals who were involved in identifying and valuing the various categories of assets acquired by Barclays in the transaction.

14. On February 9, 2009, Barclays filed its SEC Form 6-K, and included in that form a public filing of its acquisition balance sheet showing the assets and liabilities recorded as part of the Lehman acquisition. That acquisition balance sheet was published in pounds sterling, but when converted into dollar terms (using the exchange rate in effect as of that date), it lists total assets of \$59.1 billion and total liabilities and consideration of just over \$54.7 billion, plus \$300 million in equity-settled share schemes. This published acquisition balance sheet showed a total gain on the acquisition of just over £2.2 billion, which corresponded to just over \$4.1 billion.

15. During the course of the Rule 2004 discovery that took place in July, August and September of 2009, we produced back up financial data to help demonstrate the component parts to the acquisition balance sheet. This backup financial information shows that the total assets on the acquisition balance sheet included approximately \$1.93 billion of "PIM customer receivables" and "PIM deposit," which reflected amounts owed to Barclays from PIM customers and from the LBI Trustee which offset liabilities owed to customers that Barclays assumed in taking over the PIM accounts. The offsetting liabilities on the acquisition balance sheet are listed as a \$1.93 billion amount of "PIM customer payables" reflecting amounts owed to PIM customers.

16. The acquisition balance sheet as originally published did not distinguish between categories of assets in precisely the same manner as is reflected in the purchase contract. Thus, in order to make clear the values Barclays ultimately arrived at for each contractual category of assets Barclays was entitled to receive under the contract, I have undertaken an effort, with the assistance of other colleagues in the finance department, to break down the values by contractual category.

Repo Collateral: Schedule A and December Settlement

17. Section 1(a)(ii)(A) and section 13 of the Clarification Letter provides that the Purchased Assets to be transferred to Barclays in the sale include all of the assets in the repo collateral. These assets consist of both (a) assets transferred to Barclays as part of the repo transaction on September 18, 2008, which were subsequently listed on Schedule A to the Clarification Letter, filed in Court on September 30, 2008, and (b) assets received by Barclays in the December 22, 2008 settlement agreement with JP Morgan and LBI (which was a settlement based upon the failure by JP Morgan to provide Barclays with \$7 billion in cash as promised at the time the purchase contract was finalised).

18. The Schedule A assets transferred to Barclays on September 18, 2008 were valued as of the open of business on September 22, 2008 – the closing date. After considerable effort to value these assets (which took many weeks after the closing to complete), Barclays determined a fair value for these assets of \$40,554 million (which consists of \$39,916 million in securities at clean prices (i.e. excluding the value of accrued interest), and approximately \$638 million in accrued interest and principal for matured securities within that portfolio). These numbers can be derived from documents



Barclays produced in discovery. In particular, Barclays produced a document showing its total valuation of all inventory actually transferred in September 2008, which includes both the Schedule A repo collateral securities as well as the Schedule B clearance box assets (Bates number BCI-EX-00099519). That document indicated that Barclays valued the total inventory of securities actually received in September 2008 at \$40,690 million. The amount included in the acquisition balance sheet was \$40,695m after adjusting for immaterial rounding items. From that number, my colleague Sean Teague extracted the values of all of the "Schedule B" clearance box assets (which are covered by section 1(a)(ii)(B) of the Clarification Letter), through a calculation that was prepared after the Rule 60 motions were filed. It is my understanding that document has been produced in this case. That calculation shows that Barclays valued all of the Schedule B assets actually transferred to Barclays in September 2008 to be \$779 million. If that amount is subtracted from the total value of all inventory transferred to Barclays in September 2008, it yields the number of \$39,916 million given above (the \$40,695m included in the acquisition balance sheet reduced by the Schedule B assets of \$779 million). Finally, the Gross Acquisition Balance Sheet produced by Barclays in the Rule 2004 discovery (Bates number BCI-EX-00115845) shows that Barclays received \$300 million in "cash collateral" (reflecting matured securities within the repo collateral on Schedule A) and recognised \$345 million of accrued interest on securities received in September 2008. Only \$7 million of this interest amount related to Schedule B securities – the remainder reflects interest on Schedule A securities, and hence is included in the valuation of Schedule A assets.

19. The assets transferred to Barclays in the December settlement with JP Morgan and LBI consisted of \$1.25 billion in cash and securities that Barclays valued at \$3,741 million measured as of the December 22, 2008 date of receipt. Thus, the total value of all assets received in the JP Morgan settlement was \$4,991 million. (This calculation can be derived from the document produced in discovery showing the total cash received in the December settlement (line 27 of document bates-numbered BCI-EX-00115845), and the document produced in discovery showing the total Barclays valuation for the securities transferred in the December settlement (which carries Bates number BCI-EX-00108700)).

20. Thus, based upon the foregoing, the total value of all assets Barclays received as "repo collateral," including all Schedule A assets and everything (both cash and securities) received in the December settlement with JP Morgan and LBI, equals \$45,545 million (total Schedule A assets of \$40,554 million plus securities in December settlement worth \$3,741m plus cash received in December settlement of \$1.25 billion).

Schedule B "Clearance Box" Assets

21. Section 1(a)(ii)(B) of the Clarification Letter provides that one of the categories of Purchased Assets to be transferred to Barclays in the sale are LBI's clearance box assets as of the closing, which as of September 21 were to be reflected on a Schedule B to the Clarification Letter. As explained above, the portion of the securities actually transferred to Barclays in September 2008 that were identified as Schedule B "clearance box" securities were valued by Barclays as being worth a total of \$779 million at clean prices. In addition, Barclays recognised accrued interest associated with these

securities of \$7 million. Thus, the total value of all Schedule B clearance box assets actually received by Barclays was \$786 million.

22. In addition to the clearance box assets actually transferred to Barclays in September 2008, Barclays has identified other unencumbered LBI clearance box assets which have not yet been delivered. The total amount Barclays recognised on its opening day acquisition balance sheet for these undelivered clearance box assets is \$707 million, as set forth in line 13 of the Gross Acquisition Balance Sheet. Barclays has identified additional unencumbered clearance box assets which have not yet been delivered, in the approximate amount of \$148 million. However, these amounts have not yet been recognised in Barclays' accounts.

\$769 Million in 15c3-3 Securities Or Their Equivalent

23. Section 8 of the Clarification Letter provides that Barclays shall receive \$769 million of securities either from LBI's Rule 15c3-3 account, or the equivalent type of assets in an equivalent amount. These assets have not yet been delivered to Barclays. Barclays has, however, recognised these assets in its acquisition balance sheet at the amount which Barclays is entitled to receive – i.e., \$769 million. This is shown on line 17 of the Gross Acquisition Balance Sheet (Bates number BCI-EX-00115845).

Exchange-traded derivatives and property held to secure obligations under such derivatives

24. Section 1(a)(ii)(C) of the Clarification Letter provides that one of the categories of Purchased Assets to be transferred to Barclays is the exchange-traded derivatives and "any property that may be held to secure obligations under such derivatives." It took Barclays a great deal of time after the closing to arrive at final valuations for all of these derivatives and the associated margin or collateral held to

secure such derivatives. As reflected on the Gross Acquisition Balance Sheet (Bates number BCI-EX-00115845), these exchange-traded derivatives consist of both assets and liabilities, and they are divided into options and futures separately. For options, the proprietary and market maker positions were valued as being worth approximately a negative \$1.1 billion as of the date of closing (line 42 of the Gross Acquisition Balance Sheet). (The value of the customer options was not included in the Acquisition Balance Sheet because Barclays did not acquire beneficial ownership of those options.) The value of the collateral that LBI had posted as margin to secure the OCC options was approximately \$2.29 billion (divided between lines 16 and 26 of the Gross Acquisition Balance Sheet). The collateral for the options was listed on two different lines on the Gross Acquisition Balance Sheet only because I learned about various categories of such collateral at different times, and recorded them on different lines in the backup spreadsheet. The names given to those two different lines do not bear any substantive relationship to the categories of margin listed in each line item. For example, the fact that one line item (line 26) refers to "OCC customer and clearing margin" does not mean that the amounts listed in that line item were contained in the Lehman 074 Customer account.

25. In addition to options, the exchange-traded derivatives acquired by Barclays included futures. There are two line items on the Gross Acquisition Balance Sheet: line 20 shows "Futures assets" of 3.78 billion, and line 44 shows "Futures customer payables" of \$2.6 billion. The "Futures customer payable" line is the value of the liability Barclays had as of the closing to pay amounts to futures customers who were transferred to Barclays as part of the overall sale transaction, coupled with the value of the liability that Barclays had as of the closing to pay amounts to futures exchanges and

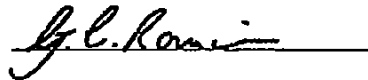
brokers relating to futures. The "Futures assets" line item represents the sum of receivables from futures customers, brokers and exchanges, the net value of open futures positions and the value of all collateral held to secure the obligations under those futures.

26. Finally, the acquisition balance sheet also includes significant entries for intangible assets and other non-financial assets. Specifically, relevant accounting standards required Barclays to recognise \$1.45 billion in intangible assets, reflecting assets such as customer lists that are expected, but not certain, to yield future economic value. These amounts must be amortised against future earnings. They are reflected on line 34 of the Gross Acquisition Balance Sheet (Bates number BCI-EX-00115845). In addition, Barclays recognised \$530 million for fixtures, fittings and software, representing the physical and technical infrastructure acquired with the Lehman business. We also recognised \$70 million in respect of prepayments and deposits that were acquired as part of the business. These amounts are listed on lines 35 and 36 of the Gross Acquisition Balance Sheet.

27. Thus, just over \$2 billion of the gain on acquisition reflected in the acquisition balance sheet published in February 2009 is attributable to intangibles, physical plant, equipment, prepayment deposits, and similar infrastructure assets associated with the business – i.e., something other than financial trading assets.

28. All of the foregoing is derived from documents that have been produced in discovery in this matter, and that I have made an effort to explain to the best of my ability in response to questions asked during two different depositions I have given.

I declare under penalty of perjury under the laws of the United States of America  
that the foregoing is true and correct. Executed this 26<sup>th</sup> day of January, 2010, in London,  
United Kingdom.

A handwritten signature in cursive script, appearing to read "G. L. Romain", is written over a horizontal line.

Gary Romain

**BCI Ex. 380**

Hearing Date and Time: June 24, 2009 at 10:00 a.m.

JONES DAY  
222 East 41st Street  
New York, New York 10017  
Telephone: (212) 326-3939  
Facsimile: (212) 755-7306  
Robert W. Gaffey  
William J. Hine  
Jayant W. Tambe

Attorneys for Debtors  
and Debtors in Possession

**UNITED STATES BANKRUPTCY COURT  
SOUTHERN DISTRICT OF NEW YORK**

-----X	
	:
In re:	: Chapter 11
	:
LEHMAN BROTHERS HOLDINGS INC., <i>et al.</i> ,	: Case No. 08-13555
	:
Debtors.	: (Jointly Administered)
	:
-----X	

**DEBTOR'S REPLY IN FURTHER SUPPORT OF ITS MOTION FOR AN ORDER,  
PURSUANT TO FED. R. BANKR. P. 2004, AUTHORIZING  
DISCOVERY FROM BARCLAYS CAPITAL, INC.**

BCI Exhibit No.

**380**



### PRELIMINARY STATEMENT

1. Shortly after closing the Sale Transaction, Barclays declared a £2.262 billion (approximately \$4.2 billion<sup>1</sup>) gain on its acquisition of LBHI's assets, resulting from "the excess of the fair market value of net assets acquired over [the] consideration paid" in the transaction. (See Ex. 4, "Barclays Results Announcement: Figures 2008" at 95) This windfall could be explained by the answers to the very questions that prompted LBHI to seek discovery in this case. As shown in LBHI's moving papers, there appear to be significant discrepancies that raise serious questions about the economics of the Sale Transaction, the adequacy of disclosures made to the Court, and even whether former Lehman executives breached duties owed to Lehman in agreeing to this and related transactions. These discrepancies provide "good cause" for the discovery the Debtor seeks. As any responsible debtor can and must do, LBHI is examining the potential for claims to determine whether there are assets that should be recovered by the Estate for the benefit of creditors. Contrary to Barclays' suggestions, this is not a "wholesale attack" on the Sale Transaction. LBHI has not formulated "potential claims" against Barclays. Nor is it seeking to retrade the deal. Rather, LBHI is asking for discovery to find out exactly what happened during the short, tumultuous, period of time at issue.

2. In its opposition papers, Barclays sheds no light on the issues. Barclays does not say how much it has actually paid in Lehman-related compensation and contract cure liabilities. Nor does Barclays address how or why it appears to have received a discount of approximately \$5 billion on its purchase of LBHI's assets, through the September 18 repurchase transaction. Barclays does not explain how this ancillary transaction, which was hardly mentioned in Court and was merely supposed to provide overnight financing in the days before the Sale Transaction

---

<sup>1</sup> Based on the approximate foreign exchange rate as of September 22, 2008.

closed, ended up providing Barclays all the funds it needed to buy Lehman's North American businesses and then some.

3. LBHI does not yet know if it has claims it should assert, but it has good cause to seek answers. The best way for Barclays to put these issues to rest is to provide full disclosure about the issues raised in LBHI's motion. Barclays has instead opted to fight or delay discovery.

### ARGUMENT

4. Contrary to Barclays' suggestion, a Rule 2004 movant does not first have to demonstrate that it has a claim. (Opp. Br. at ¶ 14) The purpose of Rule 2004 is to assist in identifying potential claims. *See, e.g., In re the Bennet Funding Group*, 203 B.R. 24, 28 (Bankr. N.D.N.Y. 1996) (Rule 2004 "is properly used as a pre-litigation device to determine whether there are grounds to bring an action ...."); *In re Bakalis*, 199 B.R. 443, 447 (Bankr. E.D.N.Y. 1996) (Rule 2004 examinations are "typically implemented in the pre-litigation stage of a bankruptcy case" and such "examinations may be used to prepare for initiation of litigation").<sup>2</sup>

#### Barclays' Opposition to Discovery About Compensation Payments Misstates the Basis for the Requested Discovery

5. When the Court was told at the hearings that, as part of the value given by Barclays in the transaction, Barclays would assume (i) \$2 billion in liabilities to pay compensation and (ii) approximately \$1.5 billion in contract cure costs, the Court relied on those numbers, in full, in assessing the value of the Sale Transaction. (*See, e.g., Ex. 17*, 9/19/08

---

<sup>2</sup> The cases cited by Barclays are not to the contrary. *See, e.g., In re Metiam, Inc.*, 318 B.R. 263, 271 n.6 (S.D.N.Y. 2004) ("The purpose of a Rule 2004 examination is to assist a trustee in a bankruptcy proceeding to 'learn quickly about the debtor entity' so that he or she may 'maximize the realization of the debtor's estate'" (citation omitted); *In re Coffee Cupboard, Inc.*, 128 B.R. 509, 514 (E.D.N.Y. 1991) ("The scope of a Rule 2004 examination is very broad and can be in the nature of a fishing expedition."); *In re Drexel Burnham Lambert Group, Inc.*, 123 B.R. 712, 708 (S.D.N.Y. 1991); *In re Silverman*, 36 B.R. 254, 258 (S.D.N.Y. 1984) (involving Rule 205 (predecessor to Rule 2004), "the broad latitude of which has been characterized as a 'fishing expedition'" (citation omitted)).

Hearing Tr. at 100:22-25; *id.* at 101:1-4; Ex. 18, 9/17/08 Hearing Tr. at 23:5-24:8) In fact, the Court found that these assumptions of liabilities were “integral” to the deal. (Sale Order at 10)

6. Nevertheless, Barclays contends that LBHI should get no discovery about compensation paid to former Lehman employees because: (1) “Barclays did not assume an obligation to pay \$2 billion in bonus payments” to Transferred Employees, and that figure was purportedly only an “estimate of the potential exposure” Barclays agreed to assume (Opp. Br. at ¶ 24); (2) LBHI can get no purchase price adjustment (*id.* at ¶¶ 31-32); and (3) Barclays offers to provide aggregate information about what it paid Transferred Employees (*id.* at ¶ 4). Barclays is wrong on all fronts.

7. First, Barclays’ assumed liability for compensation, an integral component of the consideration it was required to pay, was, according to the Asset Purchase Agreement the Court approved, a contractual obligation to pay a specified amount. Article 9.1(c) of the APA states that Barclays

*shall ... pay each Transferred Employee an annual bonus (the “08 Annual Bonuses”), in respect of the 2008 Fiscal Year that, in the aggregate, are equal in amount to 100 percent of the bonus pool amounts accrued in respect of amounts payable for incentive compensation (but not base salary) and reflected on the financial schedule delivered to Purchaser on September 16, 2008 and initialed by an officer of each of Holdings and Purchaser (the “Accrued 08 FY Liability”). Such 08 Annual Bonuses shall be awarded ... so that the aggregate amount awarded shall equal the Accrued 08 FY Liability.*

(APA § 9.1(c) (emphasis added)) And the financial schedule to which the APA refers shows the Accrued ’08 FY Liability to have been \$2.0 billion. (See Motion Ex. A) There was nothing optional or estimated about this obligation or amount.

8. Second, LBHI is entitled to determine the source of that \$2.0 billion number, which emanates from the September 16, 2008 financial schedule about which the Estate has little

or no information. (Motion Ex. A) The Court, and LBHI's board, was told that Barclays was assuming real liabilities and otherwise giving equivalent value for the assets it was buying. The fact that Barclays has apparently paid much less than \$2.0 billion in compensation suggests that the number was not based on a valid calculation and could have been overstated simply to justify a gratuitous transfer of property to Barclays. Some documents that the Debtor has been able to uncover indicate that this may be so. In the early morning of September 16, 2008, Martin Kelly<sup>3</sup> wrote an e-mail to Ian Lowitt and Paolo Tonucci saying:

Well, it took all night and lots of back and forth but the deal is done and ready for the Board. Final price did not change meaningfully—approximately a \$5 bn all in economic loss versus our marks and \$3.6 bn of resi assets left behind. Assume we can fund this after everything else winds down but paolo you need to review this. **Also, an extra \$1 bn of comp beyond our accrual** and assumption of all trade payables in LBI and LBHI. Took 745 for \$1b, and several data centers for \$400 mm. Bart [McDade] reviewed all of it before final agreement.

(Ex. 1, 9/16/09 E-mail from Kelly to Lowitt and Tonucci (emphasis added))<sup>4</sup>

9. Thus, LBHI needs discovery to determine whether the \$2.0 billion assumed liability for compensation was a properly calculated number, with a basis, or just an invented number, or something in-between. The assumption of this liability by Barclays was a critical component of the Sale Transaction. If the number was simply made up to cover for the transfer of the Debtor's property to Barclays, or wrongly calculated, claims to recover assets for the

---

<sup>3</sup> Kelly was Lehman's Managing Director of Finance & Administration. We believe he is now Barclays' CFO.

<sup>4</sup> The day before he wrote to Lowitt about "an extra 1 bn of comp beyond our accrual," Kelly himself said that a bonus number of "\$1.4B" did "not seem right" because "cash bonus for [the] entire firm is \$1.9 b." (Ex. 2, 9/15/08 e-mail from Kelly to Edmond Coku). Barclays, of course, did not purchase the "entire firm." So if the compensation accrual for all of Lehman Brothers was used, the stated assumption of liability was inflated and the consideration the Court was told Barclays was giving was overstated.

Estate might well be viable. Thus, even if the \$2.0 billion began as an “estimate,” LBHI should be entitled to discovery to test whether it was arrived at in good faith and was reasonable.

10. Third, Barclays’ assertion that LBHI could not secure a purchase price adjustment because of paragraph 9 in the Clarification Letter (Opp. Br. at ¶ 31) is incorrect and irrelevant. LBHI is investigating, among other things, whether former executives may have breached fiduciary duties they owed to Lehman when they negotiated this deal and its post-approval amendments. If such misconduct occurred (and LBHI takes no position on that yet) the surrender of a remedy that was put in place by the persons accused of such a breach of duty would be unenforceable, both as a matter of tort law and public policy. Besides, other remedies could be available to LBHI if it has viable claims, including a review of the Sale Order.

11. Finally, Barclays’ offer to provide unspecified “aggregate” compensation information is not enough.<sup>5</sup> Not only is LBHI entitled to examine whether Barclays fully complied with Section 9.1(c) of the APA, it also must depose the former Lehman executives (now working for Barclays) who were, directly or indirectly, involved in or affected by the negotiations with Barclays. Barclays’ discussions with these individuals about their post-transfer compensation, while the Sale Transaction was being negotiated, raises possible conflicts of interest that require examination. The limited documents in LBHI’s possession indicate that significant amounts of money, including “special cash awards,” may have been promised by Barclays to select former Lehman executives, including some from whom we seek discovery. (See Ex. 3, Declaration of Rajesh Ankalkoti at ¶¶ 5-7) Other information the Estate has been able to develop suggests that e-mail communications about this post-transfer compensation may

---

<sup>5</sup> (See Ex. 3, Declaration of Rajesh Ankalkoti, dated June 22, 2009)

have been deliberately avoided in favor of delivering sealed envelopes. This provides “good cause” for discovery on this issue.

Barclays Should Provide Discovery About Cure Amounts

12. Barclays argues that LBHI should get no discovery about contract cure payments because (1) LBHI allegedly can have no claim as to this issue (Opp. Br. at ¶ 35); (2) LBHI allegedly has the most relevant information (*id.*); and (3) Barclays says it has agreed to provide enough information. (*Id.*) These contentions miss the point. Here, Barclays points to the text of the APA in arguing that the \$2.25 billion entry under “Cure pmt” in the financial schedule attached to the APA was merely an estimate. (Opp. Br. at ¶ 37) But LBHI does not contend that \$2.25 billion was an amount Barclays was obligated under the APA to pay in full. The issue is just how far off the mark this purported “estimate” was, why that was so, and how that affected the total consideration Barclays paid. Against an “estimate” of, first, \$2.25 billion (in the 9/16/08 financial schedule) and then \$1.5 billion (in Court the next day), Barclays wound up paying only about \$200 million for contract cures. Again, the Court and the LBHI board were told that equivalent value was being exchanged in the Sale Transaction. The assumption of cure liabilities estimated to be at least \$1.5 billion was a critical component of this value. If that “estimate” for assumed cure liabilities was inflated, the value the Court was told Barclays would give in the deal was inflated. This issue, therefore, warrants examination.

13. In addition to the fact that Barclays apparently ended up paying only a fraction of these amounts after the transaction closed, another good reason discovery is necessary lies in the fact that shortly after concluding the Sale Transaction, Barclays reported a £2.26 billion (approximately \$4.2 billion based on the September 22, 2008 exchange rate) gain on the acquisition of Lehman’s assets. Barclays now contends that this enormous gain was earned

because the “acquired businesses have performed well.” (Opp. Br. at ¶ 56) That assertion, however, is belied by Barclays’ own report, which stated that “[t]he excess of the fair value of net assets acquired over consideration paid resulted in £2.262m in gains *on acquisition*.” (See Ex. 4, “Barclays Results Announcement: Figures 2008” at 95 (emphasis added); *see also id.* (suggesting it would be impractical to disclose profits and losses from the acquired businesses at the time of the report))

14. Barclays’ contention that LBHI already has the information it needs is not true. LBHI has insufficient information as to how the numbers included in the Sale Transaction and presented to the Court were derived because Lehman’s key former employees now work for Barclays. Nor does LBHI have information about what Barclays and these former Lehman employees discussed (either before or after the closing) as to the contract cure issue. LBHI also lacks information about Barclays’ internal decisions as to which contracts to designate as “Purchased Contracts” under the APA.

The Details of the Repurchase Transaction Were  
Not Fully Disclosed and Require Further Examination

15. Much of what occurred with regard to the repurchase transactions was not disclosed to the Court before its approval of the Sale Transaction and LBHI does not have access to the people who negotiated the agreements. Nonetheless, Barclays contends that information should remain immune from discovery because: (1) public policy disfavors “unwarranted hindsight attacks on such court-approved transactions” (Opp. Br. at ¶ 43); (2) Barclays allegedly took an “enormous [] risk” in this deal (*id.* at ¶ 44); and (3) the Court approved these transactions based on its “informed” assessment of the transaction. (*Id.* at ¶ 47) Again, Barclays’ assertions lack merit.

16. First, the cases Barclays cites are inapplicable. None addresses anything like the unprecedented circumstances that gave rise to the Sale Transaction, and the expedited manner in which it was negotiated and approved by the Court. Indeed, while Barclays' cases point to a policy generally favoring the finality of court-approved sales, they do not address the countervailing policy of ensuring that expediency does not shield an otherwise unfair transaction from scrutiny.<sup>6</sup> Moreover, Barclays' arguments against revisiting the Court's Sale Order come with ill grace from an entity that has *itself* filed two post-closing Rule 60 motions to re-examine purported mistakes in the deal, and also has applied to approve a December 5, 2008 Settlement Agreement whereby Barclays received additional money it claims mistakenly was not paid to it under the original agreements. If facts emerge to support it, the Debtor clearly has the same right to revisit the Sale Order.

17. Second, information uncovered to date calls into question Barclays' contentions that it undertook "enormous" risks and that the Court was fully informed. For example, e-mail communications among senior Lehman executives indicate that the parties may have intended to employ the September 18 repurchase transaction, in which Lehman posted some \$50 billion in collateral against Barclays' \$45 billion in overnight financing, to effect a gratuitous transfer of additional billions in securities to Barclays, essentially giving Barclays an undisclosed discount on the Sale Transaction.<sup>7</sup> Among other things, this effectively would negate Barclays'

---

<sup>6</sup> Barclays' quotation from Judge Posner (Opp. Br. at ¶ 58) and its insinuation that sanctions may be appropriate are way off base. Not only has the Estate not filed any claims (so the case is inapplicable on its face), but LBHI is engaging in a wholly appropriate investigation as to how Barclays acquired billions of dollars in assets, through seemingly one-sided agreements, with limited creditor and judicial review. That is what any reasonable debtor-in-possession should be encouraged to do under these circumstances.

<sup>7</sup> Nowhere in the APA or related documents is there mention of a discount, as acknowledged in e-mails between Messrs. Reilly and Lowitt (both from Lehman) the night before the September 18 repurchase transaction. (See Ex. 5 [9/17 e-mail chain]) Reilly wrote: "I went thru all docs and did not see reference to the price haircut. If



assumption of a purported \$4.25 billion in liabilities as the consideration the Court was told Barclays would give in the Sale Transaction.<sup>8</sup> This e-mail traffic suggests that Lehman and Barclays planned for LBI to intentionally default on the repurchase transaction or otherwise through the repurchase agreement to roll the pledged collateral into the Sale Transaction at a discounted price. Martin Kelly's description of the "final price" in the deal as including "a \$5 bn all in economic loss versus our marks" (Ex. 1) further supports the possibility that the \$50 billion in collateral in the repurchase agreement was given to Barclays for only \$45 billion, thus giving Barclays an undisclosed discount. The Court was never told about this. Even the disclosures noted in Barclays' opposition fail to mention it. (Opp. Br. at ¶¶ 49-52)

18. Again, there is some e-mail indicating good cause for further examination. On September 18 at 6:04 a.m. (before Barclays and LBI executed their repurchase transaction), Gerard Reilly (Lehman) wrote to Ian Lowitt (Lehman's CFO) and Michael Gelband (another senior Lehman executive):

I need some help resolving these issues today ...

3) Not clear on the amount of block discount or how we make it happen. **Defaulting on repo could be the best as discount could be taken from haircut.** If not that then we need to give business an allocation of block discount so they can mark down the books tonight. Does this create a problem as it could tip the broker early? Would we rather have that be in the sale price tomorrow?

(Ex. 9 (emphasis added))

---

(continued...)

we want conservative marks to reflect block nature we need to know how much and then can allocate to most logical assets." (*Id.*) Lowitt replied: "Since not in contract hard to see what to d[o]." (*Id.*)

<sup>8</sup> Documents prepared by Lehman employees purporting to draft "opening balance sheets" for Barclays' first day of operations after the closing of the Sale Transaction indicate that the assets being transferred under the September 18 repurchase transaction plus additional cash and securities were to be balanced against the \$4.25 billion in liabilities Barclays was to assume, plus an unknown \$3.38 billion "equity" component that was never explained to the Court. (*See* Exs. 6-8)

19. In this regard, the make up of the collateral supporting the September 18 repurchase transaction also requires further investigation. There are some indications that, rather than “step into the shoes” of the Federal Reserve repurchase agreement to provide overnight financing, Barclays cherry picked higher-quality collateral and used the repurchase agreement to take it out of the Estate. On September 18, 2008, Eric Felder, a senior Lehman executive, wrote: “The barclays guys chose the assets we did not have anything to do with it.” (*Id.*) Other e-mails suggest Barclays selected only the most liquid and non-risky securities to purchase under the APA and the September 18 repurchase transaction. (*See, e.g.*, Ex. 10) These indications that Barclays itself appears to have chosen the assets posted as collateral call into question Barclays’ assertion that it simply “stepped into the shoes” of the Fed and assumed significant financial risk in the Sale Transaction, especially because Barclays appears to have been protected by \$5 billion of the house’s money.

20. These questions are further complicated by modifications the parties made to the APA and the September 18 repurchase transaction after the Court approved the Sale Transaction. On September 22, 2008, the parties to the APA submitted a so-called Clarification Letter, which reflected substantial changes to the deal after it had been approved. Among other things, the Clarification Letter fundamentally changed the APA definitions of Purchased Assets and Assumed Liabilities (allowing Barclays to receive for unknown reasons so-called “Schedule B” assets), and deleted from the APA a purchase price adjustment clause (*see* Clarif. Letter ¶ 9), which would have ensured that Barclays would not gain a windfall from post-closing price fluctuations in the securities it purchased, “including repos,” subject to a ceiling of \$750 million. (APA ¶ 3.3)

21. The Clarification Letter also terminated the September 18 repurchase transaction and stated that “Seller and Purchaser shall be deemed to have no further obligations to each other under [that agreement] (including, without limitation, any payment or delivery obligations) ....” (Clarif. Letter at ¶ 13) Notwithstanding this termination, Barclays later sought to enforce the September 18 repurchase transaction, demanding that LBI transfer approximately \$7 billion. (See Ex. 11, Leventhal Decl. at ¶¶ 13-15)<sup>9</sup> Under the December 5, 2008 settlement between the trustee for the SIPA liquidation of LBI, Barclays and JPMorgan Chase, securities and cash with a total value of over \$6 billion appears to have been transferred to Barclays. (*Id.* at ¶ 22)<sup>10</sup>

22. These post-approval alterations to the Sale Transaction raise a number of questions, including why the Clarification Letter or statements to the Court never mentioned the parties’ purported agreement for Lehman to pay additional billions in cash and collateral to Barclays. The complex machinations undertaken by the parties to transfer these assets to Barclays are impossible to accurately retrace without discovery. Nor is it possible without discovery to know for certain whether Barclays received consideration to which it was not entitled. In fact, when it addressed the December 5, 2008 settlement, the Court itself noted that future discovery might be necessary about this issue. (See Ex. 14, Dec. 22, 2008 Hearing Tr. at 50:18-51:6)

The Requested Discovery Is Not Unduly Burdensome, Overbroad or Duplicative

23. Barclays complains about the purported burden and overbreadth of the requested discovery. (See Opp. Br. at ¶¶ 16-17, 34, 39-40, 58) The Debtor’s request, however, covers a

---

<sup>9</sup> It appears that by late afternoon or early evening on September 19, the parties may have known that the \$7 billion in question was not in Barclays’ account at JPMC, and Bob Diamond, Barclays’ chairman, contacted JPMC regarding these funds. (See Exs. 12-13)

<sup>10</sup> LBHI is not a party to the December 5, 2008 settlement.

defined set of individuals and documents generated over only a few weeks. Compliance will not disrupt Barclays' operations.<sup>11</sup> There should be little burden for Barclays, for example, in isolating and reviewing the documents and e-mails of the relatively small number of its employees involved in these short-lived negotiations. Likewise, the files of former Lehman employees retained by Barclays (from September 22 onward) likely are not extensive.

24. Furthermore, Barclays' repeated contentions that LBHI already has access to sufficient information on these transactions are meritless. (Opp. Br. at ¶¶ 16, 19-21, 35, 39, 55) As noted in LBHI's Motion, the Lehman executives involved in these negotiations went to work for Barclays and therefore are not available to LBHI. And contrary to Barclays' assertion (*id.* at ¶ 19), personnel at Alvarez & Marsal are not a substitute; they did not participate in the negotiations at issue. (*See* Ex. 15, Declaration of Bryan Marsal)

25. Finally, Barclays' contention that the Debtor rushed into this motion is baseless. The Debtor moved for an order under Rule 2004 only when it became evident that Barclays intended to resist or delay cooperative discovery. (*See* Ex. 16, Declaration of Robert W. Gaffey)

### **CONCLUSION**

For the foregoing reasons and those set forth in the Motion, LBHI respectfully requests that the Court issue an order allowing LBHI to take the requested document and deposition discovery and granting such other relief as the Court deems just and proper.

---

<sup>11</sup> LBHI does not contemplate lengthy depositions involving multiple questioners. For the sake of efficiency and to reduce burden, LBHI opposes the recent attempts by third parties, WesternBank and Bank of New York, to piggyback on this Rule 2004 motion to secure discovery on unrelated matters. Indeed, the transactions about which they seek discovery involve separate repurchase agreements and potential claims.

Dated: June 23, 2009  
New York, New York

Respectfully submitted,

/s/ Robert W. Gaffey

Robert W. Gaffey

William J. Hine

Jayant W. Tambe

JONES DAY

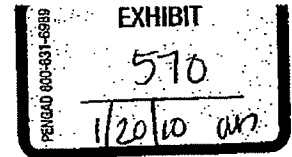
222 East 41st Street

New York, New York 10017

Telephone: (212) 326-3939

ATTORNEYS FOR DEBTOR AND DEBTOR  
IN POSSESSION

**BCI Ex. 443**



**From:** HSNovikoff@WLRK.com  
**Sent:** Friday, October 31, 2008 3:28 PM  
**To:** levinson@hugheshubbard.com; giddens@hugheshubbard.com; kobak@hugheshubbard.com; Sokalski, Felicia (US - Parsippany); KCAPUTO@sipc.org; wfisher1@sipc.org; Karp, Marlo (US - Parsippany); Kottkamp, Jeff (US - New York)  
**Cc:** janathan.hughes@barclayscapital.com; stephen.m.cutler@jpmorgan.com; lawrence.n.chanen@chase.com; rdavis@cgsh.com  
**Subject:** RE: Annex A to the Proposed Settlement Agreement among JPMorgan, BarCap and SIPA Trustee

Marshall:

I've attached the spreadsheet with "collateral values" as of Sept 17, which was the last evening on which the Fed provided financing. I understand that these collateral values were furnished principally by third-party pricing sources, and we caution against using those values as reliable indicators of realizable value. I had this information readily available, but I don't have valuations at hand for later dates. I will endeavor to get a more current valuation and provide that to you as well.

The securities on this list are all of the securities that were financed by the Fed on the evening of Sept 17 which are still in LBI's clearance account. A number of securities financed by the Fed on Sept 17 but were not previously delivered to BarCap were liquidated by JPMorgan before this settlement took shape (at which time JPMorgan suspended sales of those securities), which is the reason for the need to make a cash payment as part of the settlement.

A minor point which has just developed — when JPMorgan first proposed delivery of this group of securities there were two additional securities on the list provided to BarCap at that time. However, those securities were sold before the suspension of sales took effect. The proceeds of the sale of those two securities totaled \$7,103,500, and BarCap has asked that such amount be added to the Settlement Consideration. JPMorgan is prepared to do so, and suggests that Section 1(b) or (c) of the Settlement Agreement be modified to include such proceeds.

Please let me know if you have any additional questions.

Hal

Harold S. Novikoff  
Wachtell, Lipton, Rosen & Katz  
hsnovikoff@wlrk.com  
Direct Dial: 212-403-1249  
Direct Fax: 212-403-2249

---

**From:** Levinson, Marshall [mailto:levinson@hugheshubbard.com]  
**Sent:** Friday, October 31, 2008 2:40 PM  
**To:** Giddens, James W. (Hughes Hubbard & Reed, LLP); Kobak, James B. (Hughes Hubbard & Reed, LLP); fsokalski@deloitte.com; KCAPUTO@sipc.org; wfisher1@sipc.org; Novikoff, Harold S.; Karp, Marlo (US - Parsippany); Kottkamp, Jeff (Deloitte & Touche LLP)  
**Cc:** janathan.hughes@barclayscapital.com; Cutler, Stephen M. (JPMorgan Chase Bank, N.A.)  
**Subject:** RE: Annex A to the Proposed Settlement Agreement among JPMorgan, BarCap and SIPA Trustee

Hal: please send us a file with the value of these securities as of 9/17 and as of the latest date available. Were these the same securities that were to be delivered to Barclays on the 17th?

BCI Exhibit No.

443

**From:** Giddens, James W.  
**Sent:** Friday, October 31, 2008 2:01 PM  
**To:** Levinson, Marshall; Kobak, James B.; fsokalski@deloitte.com; KCAPUTO@sipc.org; William Fisher (wfisher1@sipc.org)  
**Subject:** FW: Annex A to the Proposed Settlement Agreement among JPMorgan, BarCap and SIPA Trustee

---

**From:** HSNovikoff@WLRK.com [mailto:HSNovikoff@WLRK.com]  
**Sent:** Friday, October 31, 2008 12:25 PM  
**To:** Giddens, James W.  
**Cc:** rdavis@cgsh.com; jonathan.hughes@barclayscapital.com; stephen.m.cutler@jpmorgan.com; HSNovikoff@WLRK.com; shari.leventhal@ny.frb.org  
**Subject:** Annex A to the Proposed Settlement Agreement among JPMorgan, BarCap and SIPA Trustee

<<1310764\_3.xls>>

**Jim:**

**As discussed, attached is Annex A to the Settlement Agreement, which is the list of securities that would be delivered to Barclays Capital when the Settlement Agreement becomes effective. Please feel free to share with the other members of your team on a confidential basis due to its market-sensitive nature.**

**Please let me know if you have any questions.**

**Best regards,**

Hal

Harold S. Novikoff  
Wachtell, Lipton, Rosen & Katz  
hsnovikoff@wlrk.com  
Direct Dial: 212-403-1249  
Direct Fax: 212-403-2249

\*\*\*\*\*

Any tax advice contained in this communication is not intended or written to be used, and cannot be used, for the purpose of avoiding tax penalties and is not intended to be used or referred to in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement.

\*\*\*\*\*

Please be advised that this transmittal may be a confidential attorney-client communication or may otherwise be privileged or confidential. If you are not the intended recipient, please do not read, copy or re-transmit this communication. If you have received this communication in error, please notify us by e-mail (helpdesk@wlrk.com) or by telephone (call us collect at 212-403-4357) and delete this message and any attachments. Thank you in advance for your cooperation and assistance.

www.wlrk.com

\*\*\*\*\*

\*\*\*\*\*

This email and any files transmitted with it may contain privileged or confidential information. Use, disclosure, copying or distribution of this message by anyone other than the intended recipient is strictly



prohibited. If you have received this email in error please notify the sender by reply email and destroy all copies of this message in your possession, custody or control.

\*\*\*\*\*

\*\*\*\*\*

Any tax advice contained in this communication is not intended or written to be used, and cannot be used, for the purpose of avoiding tax penalties and is not intended to be used or referred to in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement.

\*\*\*\*\*

Please be advised that this transmittal may be a confidential attorney-client communication or may otherwise be privileged or confidential. If you are not the intended recipient, please do not read, copy or re-transmit this communication. If you have received this communication in error, please notify us by e-mail (helpdesk@wlrk.com) or by telephone (call us collect at 212-403-4357) and delete this message and any attachments. Thank you in advance for your cooperation and assistance.

www.wlrk.com

\*\*\*\*\*

Type	CUSIP	Class	Remaining Par	Price Source	Security Price	Sec Factor	Collateral Value
PDCF	14984XAA6	CDO	850,000,000	DY	35.13825	0.981215	298,064,087.33
PDCF	53957DAF0	ABS	195,000,000	DY	60.924446	1	118,802,670.84
PDCF	52518TBG6	Corporate	85,000,000	DY	88.5	1	75,224,999.19
PDCF	53957DAD5	Corporate	91,000,000	DY	72.799501	0.982431	65,083,612.88
PDCF	G0969HAA2	CDO	170,000,000	DY	55.60825	0.958035	90,566,944.48
PDCF	53957DAG8	CDO	113,475,000	DY	41.877777	1	48,176,439.91
PDCF	25857BAA4	Corporate	36,700,000	DY	92.294334	1	33,872,021.08
PDCF	983759AC5	Corporate	42,927,000	VI	93.5	1	40,357,937.71
PDCF	14984XAC2	CDO	77,000,000	DY	31.008251	0.989187	24,140,451.34
PDCF	52521VAF9	CDO	41,567,000	DY	75.277779	1	31,474,178.38
PDCF	922219AB6	CDO	105,000,000	DY	63.030383	0.958652	23,895,070.33
PDCF	05852IAG0	Corporate	28,200,000	DY	76.280495	1	21,511,098.90
PDCF	86364YAB0	CDO	40,628,000	VS	76.960798	0.895134	28,048,883.64
PDCF	00764PAL4	ABS	62,270,000	D4	68	0.80209	34,028,823.38
PDCF	87927VAE8	Corporate	19,035,000	VI	93.285999	1	18,091,848.00
PDCF	25857CAA2	Corporate	19,000,000	DY	92.554977	1	17,585,445.17
PDCF	52519SAL7	ABS	34,057,000	VI	62.476269	1	21,277,543.75
PDCF	037898AB9	ABS	126,130,570	DY	66.482001	0.999087	84,135,863.34
PDCF	40049JAT4	Corporate	15,000,000	VI	118.837997	1	17,846,950.00
PDCF	05366VAA6	ABS	42,860,000	D4	68	0.930488	27,170,841.32
PDCF	361856ER4	ABS	103,750,000	VI	50.098841	0.844282	43,988,122.64
PDCF	36829WAF9	ABS	14,431,000	DY	101.04108	0.826204	9,321,245.41
PDCF	86364YAJ3	CDO	18,466,000	VS	92.060797	0.921977	15,722,259.81
PDCF	86364YAC8	CDO	19,100,000	VS	76.960798	0.895134	13,186,316.76
PDCF	52521UAC8	CDO	43,576,000	DY	45.364607	1	19,768,167.89
PDCF	43710MAA0	ABS	40,000,000	VI	60.09723	0.622328	14,988,646.51
PDCF	86362NAF7	CDO	29,427,000	VI	65.298778	0.918488	17,721,252.53
PDCF	05874KAE7	CDO	27,500,000	DY	31.383667	1	8,630,508.26
PDCF	05852IAJ4	Corporate	12,100,000	DY	76.454918	1	9,261,045.27
PDCF	52524MAA7	ABS	416,156,000	DY	4.195685	0.822341	14,933,211.83
PDCF	617821AA9	ABS	20,000,000	DY	106.92493	0.85014	18,403,713.70
PDCF	52524MAE9	ABS	41,615,000	VI	29.157491	0.822341	10,020,659.18
TSLF	362341LS6	CDO	35,000,000	VI	88.881883	0.470422	14,668,097.94
PDCF	86364XAE6	ABS	12,289,000	VI	58.744438	1	7,243,528.40
PDCF	393505K35	ABS	19,700,000	VI	52.526299	1	10,405,729.65
PDCF	52519BAD2	CDO	37,793,918	DY	108.421549	0.92882	38,437,115.93
PDCF	210805DL8	Corporate	9,540,000	VI	143.289001	1	13,998,635.06
PDCF	867652AA7	Corporate	5,500,000	VI	151.375	1	8,331,736.00
PDCF	52521YAJ5	CDO	11,919,000	VS	93.059697	0.89497	9,957,636.83
TSLF	57643LNU6	CDO	15,000,000	VI	83.803009	1	12,588,464.32
PDCF	52525PAC5	CDO	527,987,000	DY	2.890578	0.835584	13,095,718.37
PDCF	9497EMAH8	ABS	17,361,000	VI	51.963959	1	9,044,239.16
PDCF	589962CN7	ABS	16,000,000	VI	78.185638	1	12,568,627.13
PDCF	25857EAA8	Corporate	7,200,000	DY	92.468758	1	6,657,750.46
PDCF	32029AAF4	ABS	33,887,000	VI	18.796841	1	6,410,377.63
PDCF	64352VMV0	ABS	13,600,000	VI	59.66293	1	8,132,182.17
PDCF	52525PAP6	CDO	45,761,000	DY	19.622	1	9,051,869.27
PDCF	48123UAA2	Corporate	32,000,000	VI	76.607002	1	24,644,268.04
PDCF	12858MAJ1	ABS	29,000,000	VI	80.236227	0.29054	6,785,031.94

PDCF	86361QAM6	CMO		90,000,000	DY	7,92829	0.786002	5,667,079.17
PDCF	854316AB2	CDO		25,000,000	DY	100.53878	1	25,375,807.29
PDCF	32027NNS6	ABS		21,340,000	VI	80.380562	1	17,185,666.69
PDCF	25746RAE6	Corporate		14,000,000	VI	103.292	1	14,783,651.31
PDCF	35729PPC8	ABS		17,090,000	VI	35.780979	1	6,136,175.29
PDCF	805564TJ0	ABS		9,500,000	VI	71.288742	1	6,784,725.22
PDCF	29078PAA8	ABS		15,700,000	D4	69.124996	0.952887	10,358,884.22
PDCF	14964XAD0	CDO		21,000,000	DY	26.258251	0.989187	5,620,126.96
PDCF	05874KAF4	CDO		19,250,000	DY	27.376449	0.988627	5,210,032.57
PDCF	85431GAL8	CDO		6,500,000	DY	85	1	5,525,000.15
PDCF	07401LAR4	CMO		61,200,000	DY	42.674536	0.771931	20,217,743.54
PDCF	61213ECH5	Muni		22,400,000	VI	100.324997	1	22,537,650.68
PDCF	04541GOD7	ABS		10,000,000	VI	62.300678	1	6,244,298.82
PDCF	9497EMAG0	ABS		10,000,000	VI	62.16906	1	6,229,936.48
PDCF	52519SAM5	ABS		24,806,302	VI	25.430309	1	6,308,319.44
PDCF	42217KAM8	Corporate		20,000,000	VI	90.441002	1	18,486,394.88
PDCF	14984XAB4	CDO		6,227,000	DY	92.638252	0.892857	5,179,506.41
PDCF	41161PL84	CMO		175,000,000	DY	3.941278	0.656662	4,719,175.82
PDCF	4041A2AH7	Corporate		5,000,000	VI	89.869003	1	4,493,450.00
PDCF	02660TFF8	ABS		24,145,000	VI	21.547489	1	5,237,215.43
PDCF	52524SAM8	ABS		20,253,000	VI	53.093802	0.735487	7,951,787.73
PDCF	393503N57	ABS		12,000,000	VI	59.155121	1	7,132,747.55
PDCF	126670CQ9	ABS		9,480,000	VI	48.13533	1	4,586,811.29
PDCF	74927UAK4	CMO		25,254,000	DY	92.292357	0.337905	7,891,619.11
PDCF	63363SAA7	Corporate		16,000,000	VI	53.861	1	14,329,220.29
PDCF	86358EFN1	ABS		23,000,000	VI	69.94479	0.667455	6,061,059.34
PDCF	12668DJ2	ABS		21,343,000	VI	58.846602	0.427143	5,375,571.22
PDCF	393505SV5	ABS		12,800,000	VI	69.348732	1	8,919,532.01
PDCF	54304N208	CDO		6,150,000	DY	64	1	3,936,114.65
PDCF	12666TAB2	ABS		10,680,000	VI	87.743073	1	9,399,520.96
PDCF	39558AE1	Corporate		17,000,000	VI	89.794998	1	15,727,549.61
PDCF	52522UAG8	CMO		5,113,785	VS	90.310097	1	4,631,901.17
PDCF	53225KAA1	CDO		7,500,000	DY	79.731667	1	6,022,233.37
PDCF	74162RAL3	CDO		11,000,000	DY	61.057224	1	6,802,314.52
PDCF	651065AE4	CDO		5,000,000	DY	79.452283	1	3,980,218.77
PDCF	86364YAF1	CMO		5,527,000	VS	92.051503	0.874052	4,459,563.91
PDCF	949789AJ0	CMO		768,523,000	DY	1.226651	0.723264	6,941,799.21
PDCF	04544GAH2	ABS		14,283,000	VI	28.64485	1	4,109,003.25
PDCF	03938LAA2	Corporate		23,000,000	VI	98.148003	1	22,951,783.84
PDCF	86359SAF1	ABS		16,465,000	VI	22.01195	1	3,644,112.37
PDCF	61748LAE2	ABS		8,865,000	VI	67.13604	1	5,962,294.92
PDCF	05951VAV9	CMO		20,000,000	VS	36.499101	0.618471	4,529,572.43
PDCF	53225MAG4	CDO		10,000,000	DY	84.05722	1	8,405,721.78
PDCF	88732JAL2	Corporate		30,000,000	VI	99.345001	1	30,298,501.25
PDCF	535682AA3	CDO		4,000,000	DY	72.823502	1	2,912,940.03
PDCF	91911TAE3	Corporate		6,000,000	VI	108.650002	1	6,601,500.00
PDCF	05952DAC2	CMO		23,512,000	VI	27.2953	0.793627	5,115,466.76
PDCF	933638AE8	CMO		9,000,000	DY	70.732166	0.809584	5,166,938.78
PDCF	92927BAB8	CMO		55,000,000	DY	33.672845	0.91046	16,953,035.89
PDCF	1248MLAN3	CDO		7,000,000	DY	50.725498	1	3,635,813.36

PDCF	86364YBC7	CMO		1,000	DY		7.817157	1	78.17
PDCF	87238FAB3	ABS		1,570,000	DY		99.013117	0.122373	190,695.39
PDCF	874008AC9	CDO		168,000,000	DY		5	0.991764	8,441,081.46
PDCF	874008AD7	CDO		29,458,000	DY		5	0.991764	1,480,590.24
PDCF	88522NAB9	CMO		1,000,000	VI		91.341701	0.641391	586,604.54
PDCF	92336TAA6	CDO		2,500,000	DY		0.844444	1	21,111.11
PDCF	956315AF2	CDO		2,600,000	DY		0.019269	0.989572	8,286.62
PDCF	98105HAA8	Corporate		44,000,000	DY		99.061768	1	44,590,317.00
TSLF	86359RAC0	ABS		2,525,000	VI		83.292908	1	2,106,043.52
				19,874,506,523					

**BCI Ex. 607**



## Memo

To: / Location: BarCap Audit Files

From: / Location: PwC Financial Analytics and Valuation Group

Date: February 8, 2009

Subject: Review of Lehman CDO Acquisition Valuations (as of 9/22/08)

### SCOPE AND BACKGROUND

As requested by the BarCap audit engagement team, the Financial Analytics & Valuation group ("we," "us," "Financial Analytics", "FA&V") within PricewaterhouseCoopers LLP "PwC" Advisory reviewed the reasonableness of the September 22, 2008 acquisition price of CDO transactions from Lehman's portfolio and assessed the reasonableness of the bid-ask spread adjustment applied to the acquisition marks.

### 1) REVIEW OF ACQUISITION PRICES AS OF SEPTEMBER 22, 2008

The client set the September 22, 2008 acquisition prices for the Lehman CDOs equal to the Desk's (i.e. "Front Office") September month-end price. The Front Office marks these positions to bid-levels that they believe are transactable in the current market, given such wide bid/ask spreads.

We reviewed nine Lehman CDOs, consisting of six CLOs, two Corporate CDOs and a Corporate CDO<sup>2</sup>. These positions are listed in the chart below:

CUSIP	Security Description	Bloomberg Type	BBG Composite Rating	Credit Support	Current Face
190358AE1	COAST-1A C1	CDO <sup>2</sup>	B	10	11,000,000
129609AB9	CALHOUN CBO LTD	CDO	NR		3,000,000
056166AC5	BABSON CLO 2008-1A B	CF-CDO	AA	19	20,000,000
131249AE7	CALLIDUS-7A C	CF-CLO-LL	A	16.667	20,000,000
04012VAC3	ARES CLO 2007-12A B	CF-CLO-LL	AA	24	52,500,000
G49348AA4	INWOOD PARK CDO 2006-1X E	CF-CLO-2ND LIEN	BB	8.5	27,000,000
402550AE0	GULF STREAM CLO 2007-1A B	CF-CLO	AA	21	12,000,000
722490AA7	Pine CGS 2008-1A A1	CLO	CC	46	914,983,802
184181AB9	COLISEUM-1A A2	CDO	BBB	5	4,750,000

FAVG performed the following steps to review the reasonableness of the Lehman acquisition prices, which were discussed and agreed upon with the audit engagement team.

- Reviewed the reasonableness of using the 9/30/08 mark as the 9/22/08 acquisition price, considering market movement between the two dates.
- Since we already reviewed the Product Control Group's (PCG) acquisitions prices (refer to Appendix A), we compared the Front Office and PCG marks to assess the reasonableness of the

BarCap: Q3 Review of Lehman Transactions  
CONFIDENTIAL

BCI Exhibit No.

607

Page 1



Front Office prices. Where large price differences exist between the Front Office and PCG, we assessed which mark appeared more reasonable.

- Assessed the reasonableness of the bid-ask spread adjustment applied to the acquisition marks.

#### 1A) REASONABLENESS OF USING 9/30 MARKS AS OF 9/22/08

While the capital markets were highly volatile over this week (9/22 to 9/30) due to the failure of Lehman and other prominent financial institutions, we observe no movement in JPMorgan published CLO spreads during this period. These spreads are based off LIBOR; however, the magnitude of the increase in LIBOR rates during the last week of September would have an immaterial impact on final value. Based on discussions we have had with market participants and observations of deals that hit triggers due to the failure of Lehman, any major impact on the value of these assets caused by the Lehman bankruptcy would likely have occurred prior to 9/22, and should therefore be incorporated into both the 9/30 and 9/22 marks. More specifically, during our review of these Lehman positions, we found that there were no new developments in any of these deals that would significantly impact pricing between 9/22 and 9/30. Therefore, the September month-end marks should fall within a reasonable range of the acquisition date's fair-value (9/22/08), especially considering the wide bid-ask range for CDOs.

#### 1B) REVIEW OF DIFFERENCE IN FRONT OFFICE & PCG MARKS

As noted above, FAVG previously performed a detailed review the Product Control Group's acquisition prices (see Appendix A detailed results). Therefore, the audit engagement team and FAVG decided we should leverage our PCG price review in order assessment of the Desk's acquisition marks. To clarify, the Desk's acquisition marks (not the PCG marks) are reflected in the opening balance sheet. Note: The PCG acquisition prices were derived as of 9/19/08 (i.e. the original Lehman acquisition date); however, we believe that the PCG marks are still an appropriate comparative measure because we expect that there would be minimal (if any) movements in the CDO prices between 9/19 and 9/22.

The following chart summarizes the differences between the Desk and PCG price for the nine Lehman CDOs. As illustrated below the difference between the PMGT Desk and the PCG acquisition prices results in a net market value decrease of approximately \$21.8M on \$150M in notional (excluding Pine).

CUSIP	Security Description	Bloomberg Type	DDC Composite Rating	Current Face	PCG Market Value	Desk PMTG Market Value	Difference in Market Value	PCG Price	Desk PMTG Price	Difference in Price
190358AE1	COAST-1A-C1	CDOA2	B	11,000,000	1,422,300	2,478,637	1,056,337	12.95	22.53	9.60
128508AB9	CALHOUN CBO LTD	CDC	NR	3,000,000	-	1,761,896	1,761,896	0	58.73	58.73
056166AC5	BARSON CLO 2008-1A-B	CF-CDO	AA	20,000,000	14,728,000	5,261,727	9,466,273	73.64	26.31	47.33
131243AE7	CALLIDUS-7AC	CF-CLC-LL	A	20,000,000	12,172,000	10,289,634	1,882,366	60.86	51.45	9.41
04012VAC3	ARES CLO 2007-12A-B	CF-CLC-LL	AA	52,500,000	33,698,750	26,594,320	7,104,430	64.55	50.66	13.89
G49349AA4	INWOOD PARK CDO 2006-1X-E	CF-CLC-2ND LIEN	BB	27,000,000	9,699,000	5,388,792	4,310,208	35.92	19.96	15.96
40255QAE0	GULF STREAM CLO 2007-1A-B	CF-CLC	AA	12,000,000	7,791,600	6,106,657	1,684,943	64.93	50.09	14.84
722490AA7	Pine CCS 2006-1A-A1	CLO	CC	914,983,902	420,610,484	429,610,484	9,000,000	46.84	46.84	0.00
194181AB9	COLISEUM-1A-A2	CDC	BBB	4,750,000	3,705,000	3,705,000	0	78.02	78.00	0.02
Total Impact:							(\$21,812,787)			

Note: the Market Value amounts in the above chart do not incorporate the on-top bid/ask adjustment (except for the Pine CCS position)



#### FINDINGS:

We reviewed the differences between the Desk and PCG acquisition prices for each security, which are discussed below.

#### Positions where PMGT Desk Price is less than PCG mark

*Callidus, Ares, Inwood Park, & Gulf Stream:*

The desk marks all four positions approximately 10 to 15 points lower than PCG. PCG marked all CLO transactions based on mid-level market observables (see Appendix A), while the Desk marked its book with the goal of reaching a transactable bid-level market price. Therefore, we would generally expect that the Desk's price would be lower than PCG's mark. While the expected magnitude of the bid-to-mid spread is difficult to quantify given the limited number of observable transactions in the CDO/CLO market during the second half of September; through discussions with market participants and research (i.e. Credit Flux) we estimate that the bid-ask on CLOs is around 10pts. Note: our market research indicated that CLO bid/ask spread ranged from 5 to 20 points; however, the upper end of this range is probably not reflective of transactable bid levels.

Furthermore, the desk also adjusts their marks to reflect certain deal specific features that are not captured by Intex. Some of these features for which the desk might take an additional discount include: structural risk, underlying revolvers or delayed draw facilities, poor asset managers (e.g. Highland), high proportion of unfunded collateral, and if the deal is still in its reinvestment period. As these are all 2006 or 2007 vintage deals, we would expect they are all still in reinvestment periods for which a further discount would be taken. Considering that the desk is taking additional discounts for deal specific features, which are not captured in the PCG price, and that the bid-ask spread seen on CLOs is around 10 pts, it does not appear unreasonable that the Desk marked these positions approximately 10 to 15pts lower than PCG.

*Babson:* There is a \$47 price difference between the Desk mark and PCG mark on this position. PCG valued this position in Intex - which resulted in a price of 74, while the Desk used a custodial provided mark of 26. The Desk's rationale for using a custodial mark is that since custodian CLO prices are generally in-line with the Desk's view, they believe that the custodian must have a reason to mark Babson significantly lower than standard CLOs price levels. While the desk could not identify any specific reason why Babson should be marked at such a discount, they tended towards a conservative mark on this position. Upon review, FAVG were unable to identify any features of Babson to support its low price. Given the limited support for the low mark the Babson, we are unable to conclude on the reasonableness of the Desk mark.

Materiality: \$(9.5M) in market value on Babson

#### Positions where PMGT Desk Price is the same as PCG mark

*Pine:* The Desk marked this position at 46 and PCG was performed a high level reviewed to get comfortable with the Desk's mark. Refer to our detailed review of this position in Appendix A. Since there were no new developments with this deal between the 9/22 and 9/30, it appears reasonable that the price did not change during this week.

*Coliseum:* This position was priced at 78 by both the Desk and PCG. Since the Desk's price is the same as PCG's mid-level price, we asked the Desk to explain why their price is reflective of a bid level price. The Desk explained that given the superior collateral quality of Coliseum (backed





primarily by IG corporate names) and the NAV coverage on this tranche in excess of 100%, a price of 78 is reflective of transactable bid level, rather than a mid-level price. Furthermore, PCG modelled this position in Intex on a yield basis, which is more in line with where deals would actually trade on the street. As such, it does not appear unreasonable that the Desk and PMGT price were the same.

**Positions where PMGT Desk Price is higher than PCG mark**

*Calhoun:* PCG valued this position in Intex and derived the price of zero under various scenarios. However, the desk marked this position 58. At later point (after September 30th pricing was completed) the Desk observed that this is a non-cash flowing CLO equity tranche, failing the most subordinate overcollateralization and interest coverage tests - as such, no recovery is expected. Therefore, the PCG price of zero appears to be more appropriate for this tranche, than the Desk's price.

Materiality: \$1.8M in market value on Calhoun

*Coast:* PCG marked this security at 13, while the Desk marked Coast approximately 10 points higher at 23. The Desk's rationale for their higher price is that the underlying collateral is highly seasoned, as the deal closed in 2000. As such, the performance of these assets is far superior to the more recent vintage collateral. Furthermore, the deal has substantially de-levered. This tranche is currently 38% subordinated. Considering these unique deal attributes, the desk mark for this position does not appear unreasonable.

**2) REVIEW ACQUISITION PRICE OF ADDITIONAL SAMPLE ("UNKNOWN" POSITIONS)**

In addition to the nine positions discussed above, the audit engagement team requested that we review a sample of securities whose asset types were initially unknown as of acquisition. Ultimately, we were able to assess the reasonableness of the 9/22/08 acquisition price for the following four securities:

CUSIP	Security	Notional	Market Value	Price
81751YAA47	SUNSET PARK CDO LTD	25,000,000	13,424,752	53.70
81751XAA63	SUNSET PARK CDO LTD	10,000,000	6,094,598	60.95
G9884KAA8	USD ZAIS 3.59125 17 May 2015	12,500,000	6,250,000	50
90264RAB87	UCI HOLDCO INC	17,832,913	13,731,343	77.00

*Note: the Market Value amounts in the above chart do not incorporate the on-top bid/ask adjustment*

*Two Tranches of Sunset Park:* These are tranches of a CSO that were priced at 54 and 61 for acquisition, based on the custodian marks. The desk subsequently realized that the Lehman bankruptcy caused these CSO securities to EOD, and the deal was accelerated. As such, BarCap received cash for these tranche in the amount equivalent to a price of 84.50. Given that the EOD occurred prior to acquisition, 84.50 is a more reasonable acquisition mark for the Sunset Park positions.

Materiality: \$10M in market value - Sunset Park positions

*Zais:* This is the first-pay AA-rated tranche of a highly seasoned amortizing ABS CDO marked at 50 for acquisition. There is approximately 89% par value coverage by investment grade collateral in the deal. However, this deal also contains CDO underlying, for which we would expect limited recovery. The 2006-1 AA ABX Index was priced at 58 as of September 22. Given the unique features of this deal and proximity to the AA ABX index value, the acquisition price of 50 does not appear unreasonable.



*UCI Holding:* This is a non-IG corporate bond marked at 77 for acquisition. The client obtained vendor prices from EJV & FTID and assigned the lowest vendor mark, which was 77. This methodology is consistent with the pricing of the other corporate securities in the population. As such, the acquisition price of 77 does not appear unreasonable.

### **3) BID-ASK ADJUSTMENT**

The client has applied an on-top bid-ask adjustment to all the Lehman CDO Desk acquisition prices. Based on discussions with the Front Office, all securities were marked by the Desk to levels that are reflective of transactable bid-levels observed in the market. Since the acquisition marks are already reflective of bid levels, any additional haircut could introduce the potential for artificial future gains. Therefore, we recommend that the no bid-ask adjustment be taken on the 9/22 acquisition prices for the CDO assets acquired from Lehman. (Note: We are more comfortable with the price of Pine after this adjustment, as an additional on-top haircut is warranted to account for the legal risk associated with Pine, as discussed in Appendix A above).

Materiality: \$12.3M in market value (excluding Pine)



**APPENDIX A (pgs 6 - 13)**

**PwC FAVG Review of Product Control Group's (PCG) Acquisition Prices**

**1) SCOPE AND BACKGROUND**

The Product Control Group (PCG) derived marks for the Lehman CDO positions as of 9/19/08, which was the date that the Lehman acquisition was initially set at - it was subsequently changed to 9/22/08 after they had completed pricing. The PCG marks represent mid-level prices. Note: in this appendix "the client" refers to PCG.

As requested by the audit engagement team, we performed the following procedures to assess the reasonableness of the PCG acquisition marks.

- 1) Reviewed reasonableness of PCG's valuation methodology considering current market conditions.
- 2) Compared assumptions/inputs that PCG used to available market data and reviewed the sensitivities of assumptions.
- 3) Benchmarked securities to market benchmarks.

**Summary of CDO population:**

The chart below shows the product description, par amount, market value and price for the nine positions we reviewed, as of 9/19/08.

CUSIP	Security Description	Bloomberg Type	BBG Composite Rating	Credit Support	Current Face	Market Value	Price	Desk
190355AE1	COAST-1A C1	CDO*2	B	10	11,000,000	1,422,300	12.93	PMTG
129609AB9	CALHOUN CBO LTD	CDO	NR		3,000,000	-	0	PMTG
056166ACS	BABSON CLO 2006-1A B	CF-CDO	AA	19	20,000,000	14,728,000	73.64	PMTG
131243AE7	CALLIDUS-7A C	CF-CLO-LL	A	16,667	20,000,000	12,172,000	60.86	PMTG
04012VAC3	ARES CLO 2007-12A B	CF-CLO-LL	AA	24	52,500,000	33,888,750	64.55	PMTG
G49349AA4	INWOOD PARK CDO 2006-1X E	CF-CLO-2ND LIEN	BB	8.5	27,000,000	9,693,000	35.90	PMTG
40255QAE0	GULF STREAM CLO 2007-1A B	CF-CLO	AA	21	12,000,000	7,791,600	64.93	PMTG
722480AA7	Pine CCS 2008-1A A1	CLO	CC	46	914,983,902	428,610,484	46.84	PMTG
194181AB9	COLISEUM-1A A2	CDO	BBB	5	4,750,000	3,705,000	78.00	PMTG

In order to assess the price of these positions as of September 19, 2008 the following files were provided by the audit engagement team and the client:

Description of Information Provided	Files Provided
Inventory of Lehman Positions	Lehman Inventory Check.xls
Intex runs and scenario analysis	CLO 9-24-08.xls
CDO Matrix Pricing	Lehman Asset Portfolio 3 10-22-2008 (2&3).xls
Underlying Collateral for Pinebush CLO	Pine.xls
Support for Pricing Assumptions	Citi Structured Credit Products CLO.pdf
Source of Spreads	JPM.ABS CDO.9-26-08.pdf
Additional Support for Pricing Assumptions	LoanPrepayment Slides_V2.pdf
Trustee Report for Pinebush CLO	PINE CCS LTD[1]. - October 2008.pdf



## 2) PCG PRICING METHODOLOGY and ASSUMPTION REVIEW

PCG valued the following seven out of the nine CLO/CDOs by using a discounted cash flow model in Intex:

CUSIP	ISSUER	Subtype	Collateral Type	BSC Composite Rating	Credit Support	Par Value	PCG MV	Price PCG	Spread	CDR	CPR	Loss Severity
190338AE1	COAST	CDO	CDO^2	B	10	11,000,000	1,422,300	12.93	6000	5	15	50
129609AB9	CALHOUN CDO LTD	CDO	CDO	NR		3,000,000	-	0	40	4	10	40
056166AC5	BARSON LOAN OPPORTUNITY CLO LT	CLO	CF-CDO	AA	19	20,000,000	14,728,000	73.64	750	4	10	40
131243AE7	CALIDUS DEBT PARTNERS FUND LT	CLO	CF-CLO-LL	A	16.667	20,000,000	12,172,000	60.88	1000	4	10	40
04012VAC3	ARES CLO FUNDS	CLO	CF-CLO-LL	AA	24	52,500,000	33,888,750	64.55	750	4	10	40
049349AA4	INWOOD PARK CDO LTD	CLO	CF-CLO-2ND LIEN	BB	8.5	27,000,000	9,693,000	35.9	2500	4	10	40
402590AE0	GULF STREAM COMPASS CLO LTD	CLO	CF-CLO	AA	21	12,000,000	7,791,600	64.93	750	4	10	40

\*Note: The Coliseum position was also priced in Intex. Based on our findings the audit team requested that we review both the acquisition and September 30 price. Please refer to section 5 for the discussion of this position.

The client uses JPMorgan mid-market indicative spreads, a flat CDR curve, and CPR and loss severity based on current market research. The following chart summarizes the assumptions that were used to value these positions as of September 19, 2008:

Assumptions	CLO	CDO
CDR	4	6
CPR	10	15
Loss Severity	40	50
Spread		
AA	750	
A	1000	
BBB		6000
BB	2500	

\*Note: CDR of 5 was used for some CLOs

**CDR:** A constant default rate of 4 was used to price all CLO positions, while a CDR of 5 was used for the Coast CDO Squared. The client provided us with research from Citigroup projecting a rise in high yield defaults up to 5.5% over the next three years, and then falling off to an average of 3%. Furthermore, we independently obtained a Citi/Aitman report on High Yield defaults dated November 5, 2008 that explains while the current annual default rate on high yield debt is slightly over 2%, their models project default rates of 4.64% in the coming months. As such, the client's use of 4% default rate for valuing its CLO positions appears reasonable. Furthermore, as the Coast CDO^2 is backed by CLOs containing High Yield debt we would expect to observe similar default rates adjusted slightly to account for the increased risk associated with securitized assets. Therefore the client's use of a 5% default rate for the Coast position does not appear unreasonable.

The client also performed sensitivity analysis (shown on pg. 4) that demonstrates the price of these positions are not particularly sensitive to change in CDR, with a 1% increase in the default assumption yielding a de minimis change in price. Rather, the discount margin/spreads appear to be the main driver of value under these market conditions.

**CPR:** A constant prepayment rate of 10 was used to price all CLO positions, while a CPR of 15 was used for the Coast CDO Squared. The client provided us with research from Barclays' Structured Credit Strategy indicating that expected average annual prepayment rates are between 10-15% for CLOs. According to a report issued by Citigroup's Structured Credit Products average annual prepayment rates may range anywhere from 7.5 to 15% for high yield loans in the coming months. As such, the client's use of 10-15% prepayment rates appears reasonable for this asset class. The client also performed sensitivity analysis (shown on pg. 4) that demonstrates the prices of these positions are not particularly sensitive to



change in CPR. Rather, the discount margin/spreads appear to be the main driver of value under these market conditions.

**Loss Severity:** The client assumes a loss severity of 40% for CLO positions, and 50% for the Coast CDO Squared. The client provided us with a Citigroup report indicating recovery rates of between 60-70% on High Yield loans, implying a loss severity of 30-40%. Furthermore, the Citi/Altman report discussed above cites observed recovery rates for HY loan collateral ranging from 45 to 60%, implying a severity of 40 to 55%. Furthermore, based on our knowledge of the market and discussions with market participants, BarCap's severity assumptions are in line with industry practice. As such the client's loss severity assumptions appear reasonable.

**Spread:**

The client uses JPMorgan non-loss adjusted mid-market (based on secondary market) spreads as of September 18, 2008 to discount these positions in Intex. Any adjustments made to these spreads based on specific deal attributes are discussed below. Using the closest dated JPMorgan mid-level spreads based on rating to discount CLO/CDO securities is in line with current market practice and appears reasonable

- **AA Rated Positions:** For 2 of the 3 AA-rated CLO securities the client uses a spread of 750bps. We independently verified that the JPMorgan AA CLO spread was 750bps as of September 18, 2008. For the third position, Babson, the client used a higher spread of 900bps to discount the cash flows. We followed up with the client, who explained, "The price that resulted from a 750 spread was more in line with AAA pricing levels. Therefore we increased the spread and derived a price that is more in line with AA-rated marks observed in the market". The client's rationale and process does not appear unreasonable.
- **A Rated Position:** For the A-rated CLO position the client uses a spread of 1000. As of September 18, 2008 the JPMorgan A CLO spread was 975bps. As shown in the sensitivity analysis below, a 25bps difference in spread does not have a meaningful impact on price at these spread levels. Furthermore, a CreditFlux report dated September 22, 2008 notes the Single A CLOs were being bid in the 1000bp area. The client's rationale and process does not appear unreasonable.
- **BB Rated Position:** For the BB-rated Inwood Park CLO the client uses a spread of 2500bps, while the JPMorgan BB CLO spreads appear to be 2000bps as of 9/18/08. The client was asked to explain why a spread of 2500 was used for this position, and it was explained that 500 basis points was added to the spread to account for the riskier nature of the 2nd lien loan collateral underlying Inwood Park. We confirmed that the collateral underlying Inwood Park is largely 2nd lien. As it is standard industry practice to take a deeper discount for 2nd lien collateral, the client's rationale and process does not appear unreasonable.
- **B Rated Position:** Finally, the client applied a spread of 7000bps to arrive at a price for the Coast CDO Squared. As there is no published spread or active market for CDO Squared's the client used a published BBB JPMorgan HG SF CDO spread of 6922bps as the best proxy for the appropriate Coast spread. While the JPMorgan spread refers to more highly rated (BBB as apposed to B) and highly subordinated (HG as apposed to Mezzanine) deals, the collateral underlying the Coast position is of higher quality than what is traditionally found in an SF CDO (HY Corp loans as apposed to ABS). While determination of the spread is judgmental, given the limited market activity and lack of pricing information for these types of products the approach used by the client to determine spread does not appear unreasonable.

**Sensitivity Analysis:** The client performed a sensitivity analysis to assess the impact of variations of these assumptions on price. The results of this sensitivity analysis are as follows:



**Inwood Park:**

Spread	10 CPR 4 CDR	15 CPR 4 CDR	10 CPR 5 CDR
2,200	40.56	40.53	46.69
2,300	38.91	38.89	45.05
2,400	37.36	37.34	43.49
2,500	35.90	35.87	42.00
2,600	34.51	34.49	40.58
2,700	33.20	33.18	39.23
2,800	31.97	31.95	37.94

**Gulf Stream:**

Spread	10 CPR 4 CDR	15 CPR 4 CDR	10 CPR 5 CDR
450.00	78.72	78.72	78.72
550.00	73.78	73.78	73.78
650.00	69.19	69.19	69.19
750.00	64.93	64.93	64.93
850.00	60.98	60.98	60.98
950.00	57.31	57.31	57.31
1,050.00	53.91	53.91	53.91

**Callidus:**

Spread	10 CPR 4 CDR	15 CPR 4 CDR	10 CPR 5 CDR
700	73.30	73.30	73.30
800	68.83	68.83	68.83
900	64.70	64.70	64.70
1,000	60.86	60.86	60.86
1,100	57.31	57.31	57.31
1,200	54.02	54.02	54.02
1,300	50.96	50.96	50.96

**Ares:**

Spread	10 CPR 4 CDR	15 CPR 4 CDR	10 CPR 5 CDR
450	78.69	78.69	78.69
550	73.60	73.60	73.60
650	68.90	68.90	68.90
750	64.55	64.55	64.55
850	60.52	60.52	60.52
950	56.79	56.79	56.79
1,050	53.33	53.33	53.33

**Coast:**

Spread	10 CPR 5 CDR	15 CPR 5 CDR	15 CPR 6 CDR
4,500	23.33	23.84	23.60
5,000	20.37	20.84	20.62
5,500	17.89	18.33	18.12
6,000	15.82	16.22	16.03
6,500	14.07	14.44	14.27
7,000	12.60	12.93	12.77
7,500	11.34	11.64	11.50

**Babson:**

Spread	10 CPR 4 CDR	15 CPR 4 CDR	10 CPR 5 CDR
600	85.63	85.71	85.63
650	83.48	83.57	83.48
700	81.39	81.49	81.39
750	79.37	79.48	79.37
800	77.40	77.52	77.40
850	75.50	75.62	75.50
900	73.64	73.78	73.64

**Calhoun:**

Spread	10 CPR 5 CDR	10 CPR 4 CDR	15 CPR 3 CDR	10 CPR
700	0.00	0.00	0.00	0.00
800	0.00	0.00	0.00	0.00
900	0.00	0.00	0.00	0.00
1,000	0.00	0.00	0.00	0.00
1,100	0.00	0.00	0.00	0.00
1,200	0.00	0.00	0.00	0.00
1,300	0.00	0.00	0.00	0.00

As can be seen above, the price is primarily driven by spread, with changes in CPR and CDR ultimately yielding little effect on price. While a 100 basis point move in spread does typically generate a few dollar move in price, the client explained that they are comfortable with this range as it is less than the typical wide bid-ask spread observed in this market. Additionally note that the Calhoun position generates a price of zero under multiple scenarios.

**3) COMPARISON TO MARKET BENCHMARKS**

PCG will benchmark the Intex outputs derived under the aforementioned assumptions to any available price points in the market for similar deals. Their primary sources of information are typically discussions



with the front office and CreditFlux, an online publication which reports trade activity and relevant pricing levels in the fixed income space.

To assess the reasonableness of the Intex-derived price levels we look to relevant market-based indices. The closest-fit benchmark for these cash CLOs is the synthetic tranching LCDX index; while it is not a cash index it is the only relevant index that incorporates tranching. For these Lehman Mezzanine tranches, subordination is a key driver of value and must be incorporated to have a comparable benchmark. However, one of the difficulties in comparing cash products (such as these Lehman CLOs) to a synthetic benchmark (such as the tranching LCDX Index), is that the synthetic and cash markets trade at different levels, especially in distressed markets. We therefore need to adjust for the cash-synthetic basis in order to formulate an appropriate benchmark for corporate collateral backed structured products that are lower in the capital structure. As such, we derived a theoretical bond equivalent price using market traded synthetic benchmarks. Although our procedures were simplified due to available market data, we feel that the derived theoretical represents a reasonable proxy of generic pricing levels for CLOs, which can be used as benchmark.

According to a research report entitled "Assessing CLO senior risk", written by JP Morgan, 10/2/2008, the cash basis for AAA rated CLOs super senior was around 225bps. As such, we calculated the cash basis price for the LCDX based on the index durations to be approximately 89 respectively (which is biased to be higher because the cash basis is based on AAA spreads). Further, we calculated theoretical tranching index dollar prices for the top 3 tranches and LCDX indices via the following formula:

$$\text{Par} - ((\text{current index spread} - \text{initial index spread}) * \text{index risky duration} * \text{tranche delta})$$

\*Note: the index spreads, duration and tranche delta were obtain from JPMC market reports

The chart below shows the values we derived:

LCDX-Tranched 8-12% Derived Cash Price	LCDX-Tranched 12-15% Derived Cash Price	Tranched LCDX 15-100% Derived Cash Price
60	69	85

While these derived prices are rough estimates of pricing levels, our derived price of 85 for the 15-100% tranche of the LCDX is corroborated by the JPMC research, which indicates that Triple A CLO prices are in the low 80s toward the end of September.

We then compared these theoretical derived tranching prices to the range of BarCap acquisition prices across the Lehman CLO portfolio by rating. BarCap's prices for the AA Mezzanine CLO tranches ranged from 64 to 74, which is within reasonable range of our market estimate for the 12-15% LCDX tranche (69). There is one A Mezzanine CLO which BarCap's has marked at 60, which is inline with our market estimate for the 8-12% LCDX Tranche.

The Coast CDO^2 (containing HY CLOs) price of 13 is supported by a credit flux market report provided by the client, which indicates that non-Investment Grade CLOs have dropped into the teens. We expect a CDO Squared containing these assets to be priced slightly more conservative due to increased correlation risk. As such a price of 12.93 does not appear reasonable.

Overall the range of prices of the CLO/CDO appear to be inline with market commentary (where available) and appear to be supported by the general price levels as stated above.



#### **4) PINE CLO**

The client holds the senior tranche of Pine CCS 2008-1a deal which is approximately a one billion dollar tranche that is 46% subordinated. The majority of the collateral is HY senior secured revolving credit facilities. There are several unique features of the Pine deal that have a significant impact on its valuation.

##### *Rationale for Haircuts*

- Collateral
  - General perception that Pine collateral is of poorer quality than index loans as they are primarily Lehman relationship loans (offering lower coupons than typically seen in HY loans) that they were unable to sell individually and had to securitize.
  - High concentration of large loans - the 12 largest positions make up over two-thirds of collateral. The largest position, Archstone, is exposure to commercial real estate market representing approximately 20% of the portfolio.
- Legal Concerns
  - Cash Flows: Pine does not hold any of these loans directly, but rather as master participation interests in loans granted by Lehman Commercial Paper Inc. Therefore, it is dependent on this Lehman subsidiary to pass on all interest and principal payments received from obligors on the underlying loans. To date, Lehman has not passed on any of the cash flows associated with the underlying loans despite being ordered to do so by Bankruptcy courts. BarCap expects to begin receiving the cash flow pass-throughs in the near future.
  - Funding: At the time of acquisition there was an unfunded balance of \$1,140M associated with the underlying collateral. Several concerns arose about BarCaps obligations relating to the unfunded amount including (a) the extent to which BarCap would need to assume the funding obligation as the senior note holders, (b) the deal held \$367M of assets in eligible cash investments at acquisition that could potentially be used to fund the underlying facilities, and (c) possibility for the funded components of the loan to be monetized independent of the unfunded loan commitments.
- Liquidity
  - The CLO market was highly illiquid in late September. Furthermore, many market participants were facing increasingly constricting cash restraints. Particularly considering the large principal amount of the position (~1B), a discount for liquidity is necessary in this type of market.

#### **Front Office Valuation Approach**

To price the position the Front Office assessed the value of both the funded and unfunded portion of the collateral. Given the legal uncertainty, the unfunded portion was priced under multiple possible scenarios. Each scenario was then assigned a weighting based on the trader's perception of likelihood. To calculate the value of the funded portion the desk assumed a starting price of 80 based on the S&P Leverage Loan Index from which they took a 20% haircut for participation risk. The following three scenarios were considered in calculating the value of the unfunded assets:

- Scenario 1: BarCap is responsible for funding the unfunded commitments up to the amount of eligible investments in the transaction (\$367M), but there is no further commitment beyond this amount.
- Scenario 2: Unfunded commitments cannot be separated from funded loan components implying that BarCap is responsible for funding the entire undrawn amount of \$1,140M.
- Scenario 3: Funded component can be monetized by BarCap without penalization for outstanding unfunded commitments.





The desk initially assigned a 30% probability weighting to Scenario 1, 70% weighting to Scenario 2, and 0% to Scenario 3 (assuming it would not be possible to isolate the funded component from unfunded component of the collateral). This approach resulted in a price of 46 for the Pine CLO. For more detailed explanation of valuation and specific calculations see Appendix B.

Given the lack of precedence for this type of situation there is significant uncertainty around the legal outcome and implications for BarCap. The desk has been in constant communication with BarCap counsel and is working with the attorneys to fully understand the likelihood and implications of all possible scenarios.

#### **PCG Pricing**

In assessing Pine, PCG considered (a) the pooled collateral characteristics noted above, (b) the high concentration risk, and (c) the recent downgrade of the tranche following Lehman bankruptcy, ultimately determining that a price of 56% of original notional was appropriate for Pine. In doing so, they looked to trading levels of senior ABS CDOs as a market comparable, as PCG believed the perceived riskiness of Pine was similar to market perception of this type of asset. Furthermore, PCG believes this price should be haircut by 75% of market value to account for additional market and legal uncertainty unique to Pine. This approach results in a final price of 47 for Pine, within 1 point of the front office mark. Refer to Appendix C for PCG's memo on the valuation of Pine.

#### **FA&V Assessment**

To assess the reasonableness of the acquisition mark on Pine we evaluated the following key components of the client's price:

- Starting price assigned based on the underlying collateral,
- Subsequent discounts taken from the starting price, and
- Overall reasonableness of the assumptions given the uncertainty and lack of precedence for this deal.

To assess the Front Office starting price of 80 we independently calculated an NAV for this tranche utilizing a vendor price/matrix approach (described below). Using the NAV approach we derived a price for the senior tranche of Pine in the low 70s. This implies an approximate 10 point discount to typical CLO prices, attributed to the poorer, lumpy nature of the collateral.

- *Vendor Pricing/Matrix Approach:* IMSAG was able to provide vendor prices on 6 of the 12 largest underlying loans, representing about 1/3 of collateral principal. These marks were used as a proxy to price the remainder of the collateral in the deal based on rating and industry. We were able to match an additional 25% of the collateral to one of the 6 loans for which we had a price based on rating and industry, and assigned the respective LPC mark to these positions. The average of all 6 LPC marks was assigned to the remaining collateral (<50% of principal). While this approach is not exact, given the relative homogeneity of the underlying collateral it allows us to obtain a reasonable proxy for the value of the underlying portfolio. See Appendix D for a table on the underlying securities used to build the matrix and relevant price points.

The client took an additional 20% discount for participation risk associated with this deal. Based on our understanding, this discount incorporates the risk associated with uncertainty around cash flows due to the Lehman bankruptcy, size of the position, and poor quality of the collateral. Both the desk and product control were able to point to recent transactions involving defaulted SIV and CSO deals that they saw trading at a 15 to 20 point discount. The client felt this was a reasonable proxy to gauge a discount relating to market disfavor of distressed structured products. Given the limited activity in the CLO market and few data points available this approach does not appear unreasonable.



The client was conservative in assigning its probability weightings to the three most probable scenarios relating to the unfunded commitments. By assigning a 70% probability to the worst case scenario (obligation to fully fund unfunded component), and a 0% probability to the best case scenario (ability to monetize funded component independent of unfunded commitment) the client took a fairly significant discount for legal uncertainty.

While we derived a lower starting price for the underlying collateral than assumed by the client, the 20% participation risk discount (which partially accounts for poorer collateral) and the conservative approach in weighting the potential funding obligations drives the client price to a level that does not appear unreasonable. Given the unique, unprecedented nature of Pine there is inherent subjectivity in assigning a mark. The client sufficiently demonstrated that they performed extensive diligence on the deal, considered all available information at the time of acquisition and logically deduced a mark employing market-based observations where possible. When considering all of the aforementioned factors on a holistic basis the final mark of 42% of original face/46% of current face does not appear unreasonable. Going forward the client should continue to monitor developments associated with Pine closely and work to expedite a resolution on all points of uncertainty.

#### **5) COLISEUM**

This security is a BBB rated Mezzanine tranche of a CDO issued in 2000 with 5% subordination backed entirely by well-performing corporate bonds (80% investment grade).

Due to limited information on this position at the time of acquisition, the client defaulted to the custodian's price of par as of 9/19. A price of par for a Mezz CDO under current market conditions is not reasonable. This was communicated to the audit engagement team, who asked us to therefore assess the 9/30 mid-level mark of 78.

As of 9/30 the client valued this position using Intex discounted cash flow, using a flat CDR curve, with CDR, CPR, and Severity assumptions that are in line with the other CDO/CLO acquisition valuations described on page 2. The client discounted the cash flows using JPMorgan mid-level HY CLO BBB spread of 1300 bps, as reported at 9/26/08 (closest available published date). We asked the client to explain the rationale for discounting using HY CLO spreads considering the underlying collateral is primarily investment grade corporate bonds. The client explained that the CLO spread resulted in a reasonable price for this position, given that they would expect a yield somewhere in the range of 15 - 20% - based on the market perception of Investment Grade Corporate CDOs. This rationale does not appear to be unreasonable. The client provided analysis showing that a 1300 DM (price of 78) yields between 15-20%; as shown in the chart below:

	15% Yield		20% Yield	
	Scenario 1	JPM/Client	Scenario 2	
Discount Margin	1,185	1,300	1,682	
Price	80.64	78	73.63	

Given that this position is priced above any of the other CDO/CLO tranches acquired from Lehman, we performed a more detailed review of the structure and collateral to gain further comfort on the 9.30 mark. Coliseum was originated in 2000 and is backed entirely by corporate bonds, the large majority of which are investment grade. Product Control calculated the weighted average price of the collateral at 90, based on FTID and BBG marks as of 10/31. The senior tranche has almost entirely paid down, indicating that principal will begin flowing to this tranche in the short-term. Given the early vintage, superior collateral and proximity to pay-down, a price in the high 70's does not appear unreasonable.



## APPENDIX B - Front Office Memo on Pine Valuation

December 12, 2008

### Pine CCS Ltd.

#### Valuation Considerations

Legal/structural considerations play a substantial role in the valuation of Pine CCS (the "Issuer"), both at the time of acquisition and subsequently. The primary collateral pool held by Pine CCS is a master participation agreement with LCPI referencing a portfolio of leveraged loans. The leveraged loans are substantially senior secured revolving credit facilities, most of which are partially funded and partially undrawn. At the time of acquisition, the best information we had was that the deal was party to \$697m of funded loans and \$1,140m of unfunded commitments via the master participation agreement and held \$367m of assets in eligible investments (substantially in a money market mutual fund where withdrawals had been frozen).

The primary legal/structural questions around the pool were:

- To what extent would the Issuer be required to apply eligible investments against the unfunded loan commitments?
- To what extent would the delayed-draw and unfunded liabilities of the transaction be funded?
- Could the funded components of loans be monetized independent of the unfunded loan commitments? And if not, to what extent would the unfunded loan commitments impact the cashflow value of the funded loans?

The starting point for our analysis was an assumption that the value of the credits in the portfolio, if held as standard term leveraged loans, was approximately 80%. (For reference, the S&P/LSTA Index for All Leveraged Loans closed at 82.44 on 9/30/08.) We additionally assumed that because the Issuer holds the participations through a bankrupt entity, although we believe the Issuer has a security interest in the cashflows of the underlying loans, that an additional haircut is applicable for that legal form of collateral. We generally assumed the value of the Pine CCS Class A-1 Note would be closely related to the NAV of the underlying assets, less any expected cashflow leakage to subordinate interests in the capital structure, which we estimated at a \$30m deduction.

Several scenarios were evaluated:

Scenario 1) If the Issuer would be required to fund some of the unfunded commitments in the collateral pool up to the amount of the eligible investments available in the transaction, but there is otherwise no impact of the unfunded loan commitments:

Funded assets: \$697m \* 80% base px \* 80% haircut for participation risk = \$446m

Future funding: \$367m \* 50% base px \* 80% haircut for participation risk = \$147m (lower assumed base price because weaker obligors would be drawing)

Total NAV: \$593m

Deduction for structural leakage: -\$30m

Net NAV: \$563m

% Price: \$563m/\$1025m = 55%

Scenario 2) If through some mechanism (either right of offset by the borrowers, interpretation of the participation agreement, or market dynamics), it would turn out to be impossible to separate the funded loan components from the unfunded commitments:

Funded assets: \$697m \* 80% base px \* 80% haircut for participation risk = \$446m

MTM of funding obligations: \$1,140m \* (80% base px \* 80% haircut for participation risk - 100% funded amount) = -\$410m

Cash in structure: \$367m



---

Total NAV: \$403m  
Deduction for structural leakage: -\$30m  
Net NAV: \$373m  
% Price: \$373m/\$1025m = 36%

Scenario 3) If it turns out the funded components of the loans could be monetized with no loss of value at all due to the unfunded commitments:

Funded assets: \$697m \* 80% base px \* 80% haircut for participation risk = \$446m  
Cash in structure: \$367m  
Total NAV: \$813m  
Deduction for structural leakage: -\$30m  
Net NAV: \$783m  
% Price: \$783m/\$1025m = 76%

The desk initially valued the tranche assuming Scenario 1 had a 30% probability weighting and Scenario 2 had a 70% probability weighting, resulting in a 42% price on the original face of the Pine CCS Class A-1 Note.

Subsequent to the initial acquisition, the Issuer experienced an Event of Default under its documents. As a result, Barclays exercised its right as the Controlling Class to accelerate the notes; the desk is of the view that the acceleration means LCPI does not have the right to request draws from the Issuer in connection with the unfunded commitments, which would correspond more closely to Scenario 3. However, it does not appear that the Issuer has any practical market outlet to monetize the funded components of the participation in liquidation. The state of the structure continues not to be completely transparent, as the CDO trustee and the desk continue to discover the approach being taken by the executors for the estate of LCPI and other Lehman-affiliated entities, so the value of the position is has been adjusted accordingly since acquisition.



---

## **APPENDIX C - PCG Memo on Pine Valuation**

### PCG - Independent Valuation

#### PINE CCS Contributing Pricing Factors

Based on the initial analysis performed by Independent Valuations, the Pine CCS pool of assets was suspect (further confirmed by the attached 10-08 Trustee Report). The portfolio appears to be loans that Lehman was unable to sell individually so in turn they were securitized. When looking through the portfolio you will notice that 12 positions make up 2/3rd of the portfolio which results in highly concentrated risk. The largest position, Archstone, is ~20% of the portfolio based on principal. At the time of the Lehman acquisition, the CMBS market was basically frozen. On September 16th, S&P downgraded all the tranches to CC Rating (Pine CCS Ltd. A-1 CC A- / Pine CCS Ltd. A-2 CC A- / Pine CCS Ltd. B CC B) as it related to the Lehman bankruptcy. This all contributed to the PCG PT valuation.

Overall view was that based on (a.) the factors relating to the pool composition along with (b.) the high concentration and (c.) recent downgrade to CC, PCG PT determined a px of \$56 was reasonable to which a haircut of 75% of MV should be applied for market and legal uncertainty.

The legal uncertainty has since been greatly diminished as the CLO has gone through EOD. As per external council, EOD has limiting the funded amt to \$785MM. This prevents cash from leaving the deal, thereby drastically reducing the size of the haircut.



APPENDIX D - Pine Collateral used for Matrix Pricing

Loan Name	Description	Balance	Maturity	Rating	Moody's		Current Price	Purchase Price	LPC Price	Market Price	FA Price
					RR	Trm/rev					
CIDW \$800MM ABL RVC 10-12-07	\$400 ABL 5 YR RVC	80,000,000.00	10/12/2012	B	45.00%	Revolvers	94.500%	97.000%	61.50	64.50	61.50
DHS DRILLING COMPANY	Term Loan	75,000,000.00	12/31/2010	CCC	45.00%	Oil and gas		99.000%	94.50	94.00	94.00
HD SUPPLY (8/30/07)	USD REVOLVER (ABL)	52,253,968.25	8/30/2012	B	60.00%	Home furnishings	94.000%	96.000%	94.00	96.50	94.00
PENNAACLE ENTERTAINMENT 2ND AAR (12/05)	REVOLVER	48,136,363.67	12/14/2010	B-	60.00%	Leisure	95.000%	96.500%	88.00	88.25	86.00
PQ CORPORATION 1ST LBN (7-30-07)	REVOLVER	46,666,666.67	7/30/2013	B	45.00%	Oil and gas	90.000%	90.250%	88.17	88.88	88.17
TXU ENERGY (10/1/07) CTR	REVOLVER	309,641,000.00	10/10/2013	B-	60.00%	Utilities	87.000%	88.000%	75.25	84.00	75.25



---

#### **APPENDIX E - PMTG Desk Methodology to Price CLO and ABS CDO Securities**

**CLO:** While the Front Office also prices the CLOs in Intex using standard assumptions and spreads, they use this price as a starting point for valuation. From there, various adjustments are taken to incorporate several deal-specific attributes that are not captured by Intex. Some of the attributes for which one might further discount a price generated through Intex include deals still in their reinvestment period, deals backed by revolvers or delayed draws, deals managed by poor asset managers, and various structural considerations of the deal. By adjusting for these factors the desk takes into account variables for which the market holds certain biases, therefore achieving a more transactable price level for each deal. Additionally, the desk reviews these prices for reasonableness based on trades they observe in the market for similar deals, and is then able to adjust prices accordingly. Through this process the desk ultimately marks to a transactable bid level price, whereas PCG derives more of a generic mid-level price for the CLO securities.

**ABS CDO:** To mark the Super Senior positions, the desk uses the NAV approach pricing all the underlying collateral via a matrix. This matrix is populated using relevant market-based indices where possible, such as the ABX and CMBX for pricing RMBS and CMBS collateral, respectively. The remainder of the matrix is populated based on trades observed by the desk in the market. Ultimately, all CDO underlying collateral is mapped to a price based on original rating, vintage, and asset type. Therefore, the Front Office considers several performance attributes of the collateral (i.e. rating, vintage, type) and incorporates current market perception of the value of this collateral, as captured through highly liquid indices and observable trades, in deriving the CDO tranche price. For mezzanine tranches, the desk will evaluate the structure of the deal and determine the likelihood and amount of time a given tranche will likely cash flow, considering both principal repayment and interest. Some deal specific attributes the desk considers in doing so include amortization of the senior tranche, subordination, WAL, collateral quality, and proximity to any deal triggers.

**BCI Ex. 736**



Rod Miller/NY/WGM/US  
09/20/2008 01:26 PM

To "Robert Messineo" <robert.messineo@weil.com>,  
akeller@sblaw.com, "David P. Murgio"  
<david.murgio@weil.com>

cc

bcc

Subject BARCLAYS REPURCHASE AGREEMENT COLLATERAL  
Fw: Delivering other assets to Barclays

----- Original Message -----

From: "Tonucci, Paolo" [paolo.tonucci@lehman.com]  
Sent: 09/20/2008 12:34 PM AST  
To: Rod Miller  
Cc: "Azerad, Robert" <RAzerad@lehman.com>; "Fleming, Dan (TSY)"  
<dfleming@lehman.com>; "Berkenfeld, Steven" <sberkenf@lehman.com>; "Lowitt,  
Ian T" <ilowitt@lehman.com>  
Subject: RE: Delivering other assets to Barclays

This is what our ops team delivered

-----Original Message-----

From: rod.miller@weil.com [mailto:rod.miller@weil.com]  
Sent: 20 September 2008 11:38  
To: Tonucci, Paolo  
Cc: Azerad, Robert; Fleming, Dan (TSY); Berkenfeld, Steven; Lowitt, Ian  
T  
Subject: Re: Delivering other assets to Barclays

We still have the 50% of residentials to transfer at closing, right?  
These were not thrown into the repo right?

----- Original Message -----

From: "Tonucci, Paolo" [paolo.tonucci@lehman.com]  
Sent: 09/20/2008 11:35 AM AST  
To: Rod Miller  
Cc: "Azerad, Robert" <RAzerad@lehman.com>; "Fleming, Dan (TSY)"  
<dfleming@lehman.com>; "Berkenfeld, Steven" <sberkenf@lehman.com>;  
"Lowitt, Ian T" <ilowitt@lehman.com>  
Subject: RE: Delivering other assets to Barclays

Rod,

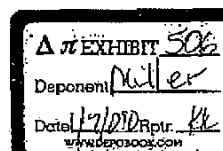
Yes. I will be free in 1 hour or so. We will also need help with SIPC  
and the release of the locked up cash.

Those are the big things on my list.

My cell is 347 392 9946.

BCI Exhibit No.

736



WGM-LEHMAN-E 00006125

Paolo

-----Original Message-----

From: rod.miller@weil.com [mailto:rod.miller@weil.com]  
Sent: 20 September 2008 11:29  
To: Tonucci, Paolo  
Cc: Azerad, Robert; Fleming, Dan (TSY); Berkenfeld, Steven; Lowitt, Ian  
T  
Subject: Re: Delivering other assets to Barclays

We need to understand this today as we are working through closing. Can we talk in a bit?

----- Original Message -----

From: "Tonucci, Paolo" [paolo.tonucci@lehman.com]  
Sent: 09/20/2008 11:22 AM AST  
To: Rod Miller  
Cc: "Azerad, Robert" <RAzerad@lehman.com>; "Fleming, Dan (TSY)" <dfleming@lehman.com>; "Berkenfeld, Steven" <sberkenf@lehman.com>; "Lowitt, Ian T" <ilowitt@lehman.com>  
Subject: Delivering other assets to Barclays

We will need to deliver the other assets in the agreement to Barclays next week.

In all the confusion of the last few days there will be challenges with identification of the location of those assets and the lien over them. In particular with JPM being the custodian and clearer there will no doubt be disputes over the rights to these. To add complexity we also have inconsistent information from JPM around the positions they were lending against on Thursday night.

This will need your assistance. We are trying to get all the information cleaned up over the weekend.

Paolo

-----  
-----  
This message is intended only for the personal and confidential use of the designated recipient(s) named above. If you are not the intended recipient of this message you are hereby notified that any review, dissemination, distribution or copying of this message is strictly prohibited. This communication is for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any financial product, an official confirmation of any transaction, or as an official statement of Lehman Brothers. Email transmission cannot be guaranteed to be secure or error-free. Therefore, we do not represent that this information is complete or accurate and it should not be relied upon as such. All information is subject to change without notice.

-----  
IRS Circular 230 Disclosure:

WGM-LEHMAN-E 00006126

Please be advised that any discussion of U.S. tax matters contained within this communication (including any attachments) is not intended or written to be used and cannot be used for the purpose of (i) avoiding U.S. tax related penalties or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.

-----

This message is intended only for the personal and confidential use of the designated recipient(s) named above. If you are not the intended recipient of this message you are hereby notified that any review, dissemination, distribution or copying of this message is strictly prohibited. This communication is for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any financial product, an official confirmation of any transaction, or as an official statement of Lehman Brothers. Email transmission cannot be guaranteed to be secure or error-free. Therefore, we do not represent that this information is complete or accurate and it should not be relied upon as such. All information is subject to change without notice.

-----  
IRS Circular 230 Disclosure:

Please be advised that any discussion of U.S. tax matters contained within this communication (including any attachments) is not intended or written to be used and cannot be used for the purpose of (i) avoiding U.S. tax related penalties or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.

-----

This message is intended only for the personal and confidential use of the designated recipient(s) named above. If you are not the intended recipient of this message you are hereby notified that any review, dissemination, distribution or copying of this message is strictly prohibited. This communication is for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any financial product, an official confirmation of any transaction, or as an official statement of Lehman Brothers. Email transmission cannot be guaranteed to be secure or error-free. Therefore, we do not represent that this information is complete or accurate and it should not be relied upon as such. All information is subject to change without notice.

-----  
IRS Circular 230 Disclosure:

Please be advised that any discussion of U.S. tax matters contained within this communication (including any attachments) is not intended or written to be used and cannot be used for the purpose of (i) avoiding U.S. tax related penalties or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.



BarCap collateral.xls

**BCI Ex. 737**

Rod Miller/NY/WGM/US  
09/24/2008 07:43 PM

To: Lori Fife/NY/WGM/US@WGM  
cc  
bcc  
Subject: schedule B

----- Forwarded by Rod Miller/NY/WGM/US on 09/24/2008 07:42 PM -----



"Tonucci, Paolo"  
<paolo.tonucci@lehman.co  
m>  
09/21/2008 06:11 AM

To: <rod.miller@weil.com>  
cc: "Lowitt, Ian T" <ilowitt@lehman.com>  
Subject: FW: 1.9 bn 4:45am update:

This is the additional collateral that we would deliver. As you can see some of this was delivered on Friday to support the credit provided by Barclays to DTCC.

Paolo

-----Original Message-----

From: Forrest, Monty  
Sent: 21 September 2008 05:17  
To: Lowitt, Ian T; Blackwell, Alastair; Ullman, Neal (NY); Hraske, James W  
Cc: Tonucci, Paolo; Azerad, Robert; Fleming, Dan (TSY)  
Subject: RE: 1.9 bn 4:45am update:

All - we have just completed the analysis for tonight. There is one issue so please read this thoroughly.

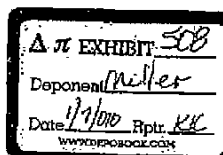
We have analyzed any unencumbered asset in all boxes that were not picked up by financing systems. Here is what we have confirmed:

	Market Value
DTC 074	862,639,264
DTC 636	300,929,347.47
Euroclear 22780	32,390,617.24
CAD	3,554,083
Bony Tri Pledge	1,090,059,646.11 (this is the issues item)
TOTAL	2,289,572,957.59

For the Bony Tri Pledge line item this number represents what the Front End financing system is telling us was pledged to Bony Tri on Friday. We have worked all night to get a separate file from the financing system (normally run) that confirms which of this activity has actually settled. That file was not available for Friday end of day. I spoke to Mark Sharland and Brian Dolan about restoring the data and we engaged a large group of senior technologists until moments ago. It appears that this particular file for Friday was overwritten and cannot be restored.

BCI Exhibit No.

737



WGM-LEHMAN-E 00015980

They only way to confirm the number of settled items is to request a file from BONY and cross check against our file. We believe the number should be very close but would like to confirm.

We have created a spreadsheet(attached) with a tab for each depo and the relevant underlying data.

Please send me a call in number for the meeting with Bart. Jim Hraska and I can call in if you would like. Going to try and get an hour or so rest now.

Rgds,

Monty

-----Original Message-----

From: Lowitt, Ian T  
Sent: Saturday, September 20, 2008 10:23 PM  
To: Forrest, Monty; Blackwell, Alastair; Ullman, Neal (NY); Hraska, James W  
Cc: Tonucci, Paolo; Azerad, Robert; Fleming, Dan (TSY)  
Subject: Re: 1.9 bn 9:15pm update:

Need a cusip level detail of the collateral, and where it is for a 7.00. Am meeting with bart. Monty, you or alastair need to be at that 7 am meeting. It to prep for a final weil meeting to finalize the agreement. Thanks. Good luck getting additional collateral. But good accurate presentation of the collateral is also critical as we will append to the agreement. Thanks again for all the hard work. Ian -----Original

Message-----

From: Forrest, Monty  
To: Alastair Blackwell  
To: Ullman, Neal (NY)  
To: Hraska, James W  
Cc: Ian Lowitt  
Cc: Tonucci, Paolo  
Cc: Robert Azerad  
Cc: Daniel Fleming  
Sent: Sep 20, 2008 9:38 PM  
Subject: Re: 1.9 bn 9:15pm update:

Just got off the phone with the group. There were some issues with files received and the amount we had identified prior has changed. It is now 1.6b. As the Canadian seems to be mostly encumbered. We are still working to identify more and have another update at 10:15

----- Original Message -----

From: Forrest, Monty  
To: Blackwell, Alastair; Ullman, Neal (NY); Hraska, James W  
Cc: Lowitt, Ian T; Tonucci, Paolo; Azerad, Robert; Fleming, Dan (TSY)  
Sent: Sat Sep 20 20:38:49 2008  
Subject: Re: 1.9 bn 8:00pm update:

Here is the latest based on our 8:00 call.

1. 800mm at Bony ( R. Azerad working with lawyers)
2. We have 746mm in 074
3. We have identified 435mm in Canada

4. We have identified another 300mm of mortgages in 636

That is a total of 2.181b.

We are now creating a spreadsheet of all data by cusip/value/depo and are sending that to Paolo/Robert

We have a 9:15 status meeting and hope to have the spreadsheet completed by that time.

We are also looking to validate how much JPMCHASE put a lien on Friday by cusip. Paolo needs this and I am reaching out to Neal to discuss.

Finally we need verification if we have complete control of these depos. Robert working with lawyers and I need to speak to Neal once again to get his thoughts

Regards,

Monty

----- Original Message -----

From: Blackwell, Alastair

To: Forrest, Monty; Ullman, Neal (NY); Hraska, James W

Cc: Lowitt, Ian T

Sent: Sat Sep 20 19:14:16 2008

Subject: 1.9 bn update:

-----Original Message Truncated-----

This message is intended only for the personal and confidential use of the designated recipient(s) named above. If you are not the intended recipient of this message you are hereby notified that any review, dissemination, distribution or copying of this message is strictly prohibited. This communication is for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any financial product, an official confirmation of any transaction, or as an official statement of Lehman Brothers. Email transmission cannot be guaranteed to be secure or error-free. Therefore, we do not represent that this information is complete or accurate and it should not be relied upon as such. All information is subject to change without notice.

-----  
IRS Circular 230 Disclosure:

Please be advised that any discussion of U.S. tax matters contained within this communication (including any attachments) is not intended or written to be used and cannot be used for the purpose of (i) avoiding U.S. tax related penalties or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein.



depo\_analysis\_9-19-2008 5.xls

WGM-LEHMAN-E 00015982

**This file has been provided in  
native format**



**BCI Ex. 738**

Rod Miller/NY/WGM/US  
09/21/2008 08:12 AM

To akeffer@stblaw.com, jfinley@stblaw.com,  
davld.murgio@weil.com, erika.weinberg@weil.com,  
harvey.miller@weil.com, loni.fife@weil.com,  
michael.lubowitz@weil.com, richard.krasnow@weil.com,  
robert.messineo@weil.com, Shai.Waisman@weil.com,  
thomas.roberts@weil.com

cc

bcc

Subject Updated box numbers

~~This copy is a duplicate of a message that has been rejected and forwarded.~~

Here's the updated number for the box. They marked it down from \$2.3bb to \$2.0bb, primarily to adjust for Lehman paper to mark sr notes down to current trading value (75% haircut) and other Lehman paper down 100%. They also firmed up the BONY number and it went down slightly, but is now firm at \$1.035 instead of \$1.090.

----- Forwarded by Rod Miller/NY/WGM/US on 09/21/2008 08:07 AM -----  
"Azerad, Robert" <RAzerad@lehman.com>

09/21/2008 07:55 AM

To <rod.miller@weil.com>

cc "Tonucci, Paolo" <paolo.tonucci@lehman.com>

Subject Unencumbered collateral

Rod

Paolo Tonucci asked me to email you this file. Feel free to call me at 917-678-9112 if you have any questions.

Robert Azerad  
Global Head of ALM  
Lehman Brothers  
Phone : (212) 320-7385; Fax: (646) 758 4235  
Email : razerad@lehman.com

> <<Copy of depot\_analysis\_9-19-2008 5 Adjusted.xls>>  
-----  
-----

This message is intended only for the personal and confidential use of the designated recipient(s) named above. If you are not the intended recipient of this message you are hereby notified that any review, dissemination, distribution or copying of this message is strictly prohibited. This communication is for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any financial product, an official confirmation of any transaction, or as an official statement of Lehman Brothers. Email transmission cannot be guaranteed to be

BCI Exhibit No.

738

WGM-LEHMAN-E 00018183

secure or error-free. Therefore, we do not represent that this information is complete or accurate and it should not be relied upon as such. All information is subject to change without notice.

-----  
IRS Circular 230 Disclosure:

Please be advised that any discussion of U.S. tax matters contained within this communication (including any attachments) is not intended or written to be used and cannot be used for the purpose of (i) avoiding U.S. tax related penalties or (ii) promoting, marketing or recommending to another party any



transaction or matter addressed herein. Copy of depot\_analysis\_9-19-2008 5 Adjusted.xls

**This file has been provided in  
native format**

WGM-LEHMAN-E 00018185

**BCI Ex. 740**

EX 516

**From:** david.murgio@weil.com  
**Sent:** Sunday, September 21, 2008 12:46 PM  
**To:** Kelly, Brian <bkelly@milbank.com>; mfazio@hlhz.com  
**Subject:** Fw: Spreadsheet  
**Attach:** BarCap collateral.xls

---

Resend...

---

David Murgio  
Weil, Gotshal & Manges LLP  
767 Fifth Avenue  
New York, New York 10153  
Tel: (212) 310 8764  
Fax: (212) 310 8007  
e-mail: david.murgio@weil.com

----- Forwarded by David Murgio/NY/WGM/US on 09/21/2008 12:45 PM -----  
David Murgio/NY/WGM/US

09/21/2008 12:42 PM

To: bkelly@milbank.com  
cc: Lori Fife/NY/WGM/US@WGM  
Subject: Spreadsheet

See attached...

---

David Murgio  
Weil, Gotshal & Manges LLP  
767 Fifth Avenue  
New York, New York 10153  
Tel: (212) 310 8764  
Fax: (212) 310 8007  
e-mail: david.murgio@weil.com

BCI Exhibit No.

740

CONFIDENTIAL

MTHM0000139

**BCI Ex. 811**

---

**From:** Burian, Saul [SBurian@HLHZ.com]  
**Sent:** Monday, September 22, 2008 9:34 AM  
**To:** Fazio, Michael; Geer, Brad  
**Cc:** Siegert, Eric  
**Subject:** RE: Lehman -- Cmte Call -- Update on Barclays Closing -- Resolution of Material Open issues.

Excellent -- these are all issues to keep in mind in connection with the reconciliation -- we did not waive any of these rights.

Saul E. Burian

Managing Director  
Houlihan Lokey Howard & Zukin  
245 Park Avenue  
New York, New York 10167  
Tel: 212-497-4245  
Fax: 212-661-6347  
Email: [SBurian@hlhz.com](mailto:SBurian@hlhz.com)

---

**From:** Fazio, Michael  
**Sent:** Monday, September 22, 2008 12:24 PM  
**To:** Burian, Saul; Geer, Brad  
**Subject:** FW: Lehman -- Cmte Call -- Update on Barclays Closing -- Resolution of Material Open issues.  
**Importance:** High

One other thing to remember is that the liability represented to be 45.5 Billion may only have been \$45 billion. We need to also reconcile that number.

The couple of open items to confirm:

1. \$45 vs 45.5 billion
2. FMV of the \$53 billion gross amount
3. Verify no exchange traded options or "other positions" were transferred.
4. Contest the \$763mm of securities transferred (to be determined in the grand scheme).

Other items to be added to the listing.

---

**From:** Burian, Saul  
**Sent:** Monday, September 22, 2008 12:14 PM  
**To:** O'Donnell, Dennis C.  
**Cc:** Despina, Luc; Aronzon, Paul S.; Dunne, Dennis; Aalto, Tanja; Fazio, Michael; Siegert, Eric; Werbalowsky, Jeffrey  
**Subject:** Lehman -- Cmte Call -- Update on Barclays Closing -- Resolution of Material Open issues.  
**Importance:** High

Dennis:



Per Luc's instructions, please forward this email to the Committee. When forwarding, please keep in mind that it has an attachment.

To: Committee of Lehman Unsecured Creditors

From: Saul Burian (Houlihan Lokey)

As you know, the Barclay's transaction closed this morning. Thanks again for participating last night in the Committee conference call. It was critical to get your input and we appreciate your time and effort. Following our committee call, and the resolution of the multi-billion dollar trading and clearing issues, we participated in discussions/explanations regarding our critical open issues and questions. The resolution was MUCH better than what we expected. Nevertheless, to preserve all rights, we did not "consent."

For your information, I have attached to this email the final version of the "Clarification Letter" that details the modifications. Here is summary of where we came out on the 3 most material issues:

- 1) Regulatory accounts/deposits: Barclays was insisting on taking all \$2.2-2.3B of these accounts, even though *immediately* upon closing they would have been able to release to themselves approximately \$1B of that amount. Company wanted to propose a settlement that Barclays return the \$1B to LBI, and retain the rest. In light of our refusal to consent, the Company got more aggressive and ultimately cut a deal with Barclays in which Barclays only gets \$763mm of the *securities* in these deposit/regulatory accounts. All cash and cash equivalents (approx \$1.5B) will be retained by LBI (the broker dealer).
- 2) Our understanding is that the \$6+B of Residential Mortgages have been split between Barclays (approx \$2.5B) and JP Morgan Chase (approximately \$3.5B). The Barclays' portion is part of the purchased assets and, they say, has *already* been *included* in the total of securities going to Barclays. The larger JP Morgan portion will be held by JP Morgan as collateral and subject to the same reconciliation process of all other JP Morgan collateral.
- 3) According to the Lehman, there is no "\$5B issues." This is what they all think happened: Barclays was supposed to transfer a full \$45.5B to take out the Fed loan and was to receive collateral from JP Morgan. They sent the full amount, but found out the next morning that they only got assets marked at \$41-42B, for some reason, approximately \$8.55B of "weak" assets were not transferred. Suprisingly, JP Morgan (under pressure from the Fed) *returned* \$7.4B of cash to Barclays. Now at the closing, Barclays is sending "back" the \$7.4B, and the \$8.55B (which they think is probably worth \$7.4B or less) was included in the purchased assets.

Bottom line netting appears to the following: The total purchased assets were booked at approximately \$49.4B, but dropped in value to about \$44-45B. Barclays was then given additional assets of \$1.9B to be included in the deal (*prior* to the Friday hearing). As noted earlier, the \$8.55B coming from JP Morgan is *included* in these numbers. All in, approximate value of \$47B. They are fogiving the Fed loan of \$45.5B and assumed liabilities of \$4.25B for a total of \$49+B. Depending on how they do liquidating the book, they will make or lose money.

We did NOT consent. We said we *understand* what they are telling us and expect to see computer runs of all transfers at some point in connection with the closing documentation. If this is the deal, sounds consistent with the Court proceeding. If this is not what actually happened, they will be hearing from us or from the LBI estate.

All in all, a very good result.

Thank you very much

Saul E. Burian

Managing Director  
Houlihan Lokey Howard & Zukin  
245 Park Avenue  
New York, New York 10167  
Tel: 212-497-4245  
Fax: 212-661-6347  
Email: [SBurian@hlhz.com](mailto:SBurian@hlhz.com)

---

**From:** O'Donnell, Dennis C. [mailto:DODonnell@milbank.com]  
**Sent:** Monday, September 22, 2008 10:15 AM  
**To:** Amanda Raboy; Claudia Cromie; David G. Yu; Dianne F. Coffino; Dov Kleiner; Edward P. Gilbert; Gerard Facendola; James McGinley; John Guiliano; Julie Becker; Mark A. Speiser; Martin B. Beeler; Michael B. Hopkins; Nitin Bajpai; Noel P. Purcell; Patrick C. Schmitter; Robert E. Bailey; Russell L. Reid; Susan Power Johnston; Taylor Siedell; Thomas J. Pasuit  
**Cc:** Dunne, Dennis; Despina, Luc; Aronzon, Paul S.  
**Subject:** LEHMAN: Agenda for Lehman Committee Call (September 22, 2008 1:00 p.m.)

Attached is the Agenda for the Lehman Committee call scheduled for 1:00 p.m. (EST) today.  
Please feel free to call if you have any questions.

**Milbank**  
**Dennis C. O'Donnell**  
**Of Counsel**  
1 Chase Manhattan Plaza  
New York, NY 10005  
T: 212-530-5287  
dodonnell@milbank.com  
www.milbank.com

<<Lehman 922 Agenda.pdf>>

---

**IRS Circular 230 Disclosure:** U.S. federal tax advice in the foregoing message from Milbank, Tweed, Hadley & McCloy LLP is not intended or written to be, and cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed regarding the transactions or matters addressed. Some of that advice may have been written to support the promotion or marketing of the transactions or matters addressed within the meaning of IRS Circular 230, in which case you should seek advice based on your particular circumstances from an independent tax advisor.

---

**This e-mail message may contain legally privileged and/or confidential information. If you are not the intended recipient(s), or the employee or agent responsible for delivery of this message to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this e-mail message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this e-mail message from your computer.**

**BCI Ex. 812**

---

**From:** Geer, Brad [BGeer@HLHZ.com]  
**Sent:** Sunday, September 28, 2008 6:15 AM  
**To:** ldespins@milbank.com; Fazio, Michael  
**Cc:** cbell@milbank.com; Livanos, Michael  
**Subject:** Re: Barclays Schedules

Yes. We're looking at them. Sched A appears consistent with that which we had last sunday night at weil. So the issue is if they really were only worth the amount that was agreed to between leh and bar, or if they were worth more. We can price a fairly big portion of the securities but there are some that we won't know on sched A. Those that we have looked at seem to suggest that they're worth more than implied by the negotiated mark in the deal, which amount isn't shown in detail on any schedule. I.e. The two sides somehow said "that although the detailed schedule A totals to X, it's really on worth Y in the aggregate (because the marks in the system are somehow outdated, which seems odd...). The diff between X and Y is sveral billion.

-----Original Message-----

From: Despins, Luc <L.Despins@milbank.com>  
To: Fazio, Michael; Geer, Brad  
CC: Bell, Crayton L. <CBell@milbank.com>  
Sent: Sun Sep 28 05:04:55 2008  
Subject: Barclays Schedules

Brad and Mike, we (finally) received the schedules to the APA on Friday. Did you guys get them? They should be "audited" now because if there is an issue with them we need to speak up now before the trail gets cold!

=====

IRS Circular 230 Disclosure: U.S. federal tax advice in the foregoing message from Milbank, Tweed, Hadley & McCloy LLP is not intended or written to be, and cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed regarding the transactions or matters addressed. Some of that advice may have been written to support the promotion or marketing of the transactions or matters addressed within the meaning of IRS Circular 230, in which case you should seek advice based on your particular circumstances from an independent tax advisor.

=====

This e-mail message may contain legally privileged and/or confidential information. If you are not the intended recipient(s), or the employee or agent responsible for delivery of this message to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this e-mail message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this e-mail message from your computer.

**BCI Ex. 813a**

**From:** Bell, Crayton L. <CBell@milbank.com>  
**Sent:** Friday, October 10, 2008 2:11 PM  
**To:** Despins, Luc <LDespins@milbank.com>  
**Subject:** FW: #3495990 v1 - Issues re: Value of Assets to Barclays  
**Attach:** schedule A.pdf; 3wm1m01\_bg.DOC

---

Further updates from Houlihan

---

**From:** Geer, Brad [mailto:BGeer@HLHZ.com]  
**Sent:** Friday, October 10, 2008 2:10 PM  
**To:** Bell, Crayton L.; Fazio, Michael  
**Subject:** RE: #3495990 v1 - Issues re: Value of Assets to Barclays

I made some additions...Michael may have some additional thoughts. I've also attached a summary version of Schedule A.

---

**From:** Bell, Crayton L. [mailto:CBell@milbank.com]  
**Sent:** Friday, October 10, 2008 9:14 AM  
**To:** Fazio, Michael; Geer, Brad  
**Subject:** #3495990 v1 - Issues re: Value of Assets to Barclays

**Redacted**

Crayton

<<3wm1m01\_.DOC>>

=====

**IRS Circular 230 Disclosure:** U.S. federal tax advice in the foregoing message from Milbank, Tweed, Hadley & McCloy LLP is not intended or written to be, and cannot be used, by any person for the purpose of avoiding tax penalties that may be imposed regarding the transactions or matters addressed. Some of that advice may have been written to support the promotion or marketing of the transactions or matters addressed within the meaning of IRS Circular 230, in which case you should seek advice based on your particular circumstances from an independent tax advisor.

=====

This e-mail message may contain legally privileged and/or confidential information. If you are not the intended recipient(s), or the employee or agent responsible for delivery of this message to the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this e-mail message is strictly prohibited. If you have received this message in error, please immediately notify the sender and delete this e-mail message from your computer.

---

Please consider the environment before printing.

This e-mail message and any attachments are for the sole use of the intended recipient(s) and may contain confidential information. If you are not an intended recipient, or an intended recipient's authorized agent, you are hereby notified that any dissemination, distribution or copying of this e-mail message or any attachments is strictly prohibited. If you have received this message in error, please notify the sender by reply e-mail and delete this e-mail message and any attachments from your computer system.

CONFIDENTIAL

BCI Exhibit No.

**813 a**

MTHM0013435

Highly Confidential

**note A**  
**Securities Transferred Under Barclay's Repo Agreement**

Type	Amount
[Source File: Barclays Financing Collateral List (Barc Ops 09-20-2008)]	
<u>Fed Settled</u>	
Agencies	\$ 9,446,640,784
US Agency Pool	9,189,607,782
Treasuries	5,405,505,432
US Agency CMO	4,634,565,146
Sovereigns	33,112
US ABS Home Eq	32,006
Unknown Type	1,054,831
Subtotal - Fed Settled	28,677,439,093
<u>DTC Settled</u>	
COMN	5,804,587,905
CBND	1,955,954,220
CMO	1,855,038,772
ABS	1,572,677,526
ETF	1,515,810,702
CONV	993,202,017
ADR	520,499,585
MUBD	433,648,790
WRNT	214,774,651
MTN	175,108,925
CVPF	98,545,761
PRFD	63,944,932
FICO	50,100,172
MFND	48,083,940
CD	33,963,125
CP	29,326,108
GTC	15,300,255
FNST	14,509,692
FNMS	12,083,704
FIPR	9,608,935
UIT	3,544,951
IABD	1,899,564
ZCB	1,063,356
FMRM	1,009,588
FNRM	991,293
FNZC	824,467
FNAR	399,415
FHOR	274,431
EQTY	174,229
NOTE	6,444
TINT	974
CERT	-
Less Friday, 9/19 Transfers	(1,035,356,662)
Subtotal - DTC Settled	14,391,601,770
<b>Total - Transferred Under Repo Agreement</b>	<b>\$ 43,069,040,864</b>

Draft 10/10/08

LBI Sale  
Value of Assets Transferred to Barclays

- Barclays APA and Clarification letter are silent as to aggregate amounts of assets and liabilities to be transferred.
- In court, assets were quantified as \$47.4 billion:
  - Page 46: Lori Fife stated “So, originally, we were selling assets that had a value of seventy – approximately seventy billion dollars. And today, your Honor, we’re only selling assets that have a value of \$47.4 billion dollars. Barclays is assuming liabilities, however, 45.5 billion dollars in connection with those assets.
  - Page 175: Novikof (JP Morgan counsel from Wachtel), stated that he had heard that Barclays is seeking to purchase \$47.4 billion, but there is a lack of clarity as to where those assets are held.
- Clarification letter has 2 schedules attached that set out the assets to be transferred:
  - Schedules were not provided to us until the evening of Thursday, Sept 25 (deal closed the prior Monday morning). When they were provided, we were advised that they were 99% accurate, but that there was some dispute ongoing, without specifying the nature of the dispute.

The components of value that were transferred to Barclays are as follows (excluding buildings)::

“Schedule A” assets:	\$43.07
Misc. securities “in the box” at transaction date:	\$1.9
Reserves related to customer accounts*	\$0.8
Approx collateral released from JPM **	<u>\$7</u>
Subtotal	\$52.8
“Schedule A” haircut	(\$5.0)
Net Total	\$47.8

\* this was a new item the night of the close of the transaction

\*\* we haven’t seen a schedule for this

The majority of the value transferred to Barclays is contained on “Schedule A”, a summary of which is attached. Summary A at face value shows approximately \$43 billion in value based on the marks in the Lehman system at the time of the transaction.

NY1:#3495990



The night of the close of the transaction we told Lehman/Weil that the pieces of the transaction that were being described to us added up to \$52-53 billion rather than the approximately \$47 billion that had been described in court the Friday before.

A few hours after we raised the issue, Lehman came and got us and sat down to try and show us how things added up. We were told that some of the marks shown on Schedule A were “out of date” and that the parties (Lehman and Barclays) had agreed to a \$5 billion discount as the appropriate “mark to market” adjustment for the securities.

Lehman wasn’t able to provide detail as to which securities on Schedule A led to the \$5 billion adjustment, nor were they able to tell us who at Lehman actually agreed to the adjustment – “various traders” was their response.

In looking at Schedule A, \$28.7 billion of \$43.07 billion is government agencies and treasuries, which are worth approximately 100 cents on the dollar.

We are still looking at the remaining balance of \$14.4 billion on Schedule A, but it is clear that there shouldn’t be a \$5 billion dollar haircut necessary here. A \$5 billion discount would imply an average mark of 65% mark, and a lot of these securities are household names.

Additionally, the marks for the remaining assets in the Lehman estate that we are starting to get (e.g. the loan book, for example), appear to be reasonably good and up-to-date. The story that we were given the night of the close that some of the marks on Schedule A were “out of date” and needed to be written down \$5 billion, is implausible.

With respect to the \$2.5 “cure liability” that Barclays assumed – and for which Lehman gave Barclays securities in the list above to cover the payment of – there is still no list summarizing what cure assumptions could lead to anything even close to this type of cure payments. The only potential cure payment that we’ve seen was a \$25.5 million pre-petition payable associated with the assumption of a services contract with the Indian servicing operations. A similar argument could be made for the \$2 billion employee compensation liability – there’s no way it’s that high.

In summary, the statement in court said that \$47.4 billion in assets were to be transferred and \$45.5 billion in assets were to be assumed. It appears that the assets transferred were significantly greater, and liabilities assumed significantly less, than the figures represented in court (by at least a few billion dollars in each case).

NY1:#3495990

**BCI Ex. 823**

EN

BCI Exhibit No.

823



EUROPEAN CENTRAL BANK

EUROSYSTEM

02 | 2010

MONTHLY BULLETIN

01 | 2010

02 | 2010

03 | 2010

04 | 2010

05 | 2010

06 | 2010

07 | 2010

08 | 2010

09 | 2010

10 | 2010

11 | 2010

12 | 2010

MONTHLY BULLETIN  
FEBRUARY

EUROPEAN CENTRAL BANK



EUROPEAN CENTRAL BANK

EUROSYSTEM



In 2010 all ECB  
publications  
feature a motif  
taken from the  
€500 banknote.

## MONTHLY BULLETIN FEBRUARY 2010

© European Central Bank, 2010

**Address**

Kaiserstrasse 29  
60311 Frankfurt am Main  
Germany

**Postal address**

Postfach 16 03 19  
60066 Frankfurt am Main  
Germany

**Telephone**

+49 69 1344 0

**Website**

<http://www.ecb.europa.eu>

**Fax**

+49 69 1344 6000

*This Bulletin was produced under the responsibility of the Executive Board of the ECB. Translations are prepared and published by the national central banks.*

*All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.*

*The cut-off date for the statistics included in this issue was 3 February 2010.*

ISSN 1561-0136 (print)  
ISSN 1725-2822 (online)



## CONTENTS

### EDITORIAL 5

### ECONOMIC AND MONETARY DEVELOPMENTS

The external environment of the euro area	9
Monetary and financial developments	15
Prices and costs	40
Output, demand and the labour market	52
Exchange rate and balance of payments developments	58

#### Boxes:

1 The results of the January 2010 bank lending survey for the euro area	19
2 Integrated euro area accounts for the third quarter of 2009	35
3 Recent housing market developments in the euro area	44
4 Results of the ECB Survey of Professional Forecasters for the first quarter of 2010	47
5 Recent developments in euro area trade	61

### ARTICLES

Euro repo markets and the financial market turmoil	67
Euro area commercial property markets and their impact on banks	81
Update on developments in general economic statistics for the euro area	95

### EURO AREA STATISTICS SI

### ANNEXES

Chronology of monetary policy measures of the Eurosystem	I
Documents published by the European Central Bank since 2009	V
Glossary	XI



## ARTICLES

### EURO REPO MARKETS AND THE FINANCIAL MARKET TURMOIL



*Repos (i.e. sale and repurchase agreements) are an important money market instrument for market participants in search of liquidity or specific securities. As a fund-raising tool, repos are an alternative to unsecured loans and the issuance of short-term securities.*

*The financial market turmoil that began in August 2007 has affected the euro repo markets in several ways, leading to a significant decline in repo market turnover and outstanding amounts. Special repo markets and repos collateralised using non-government securities have suffered most, while general collateral (GC) repos – and, in particular, government bond repos – have gained market share. As the bulk of euro repos are collateralised using liquid and safe assets, repo market activities have declined less than activities in unsecured money markets.*

*Eurosystem monetary policy operations have played an important role for repo markets during the turmoil. The increased provision of liquidity – including liquidity at longer maturities – has been essential in order to provide the banking system with liquidity insurance, but it may have had a negative impact on turnover in the interbank repo market. The Eurosystem's collateral policy has helped to improve the availability of high-quality collateral in interbank repo markets.*

#### I THE RELEVANCE OF REPO MARKETS FOR THE EUROSISTEM

credit operations may affect repo markets' maturity structure and yield curve.

Money markets play a decisive role in the implementation of monetary policy as the place where credit institutions trade short-term funds – the first element in the transmission of monetary policy. Money markets provide information which is used by central banks (including the ECB) in the implementation of monetary policy. In turn, specific features of the implementation of monetary policy may have an immediate impact on money markets – particularly trading volumes and rates. This is true not only for unsecured money markets, but also for repo markets. This explains the Eurosystem's interest in this market segment.

A repo is essentially a transaction in which one market participant borrows funds from another market participant against collateral (see Box 1 for more details). The Eurosystem's credit operations are a close substitute for repo markets, since market participants can raise funds against collateral through interbank repos, as well as through the Eurosystem. An increase in the amount of credit provided by the Eurosystem may therefore have implications for volumes and rates in repo markets. Similarly, changes in the maturity profile of Eurosystem

Furthermore, of specific importance in this respect is the collateral policy of the Eurosystem. An asset deposited with the Eurosystem as collateral cannot be used to collateralise a loan in the repo market at the same time. This means that the more the Eurosystem accepts collateral that is not accepted (or hardly ever accepted) in the repo market, the more collateral becomes available for repo market transactions. The Eurosystem has always accepted a broad range of assets as collateral for its credit operations, including private sector bonds and non-marketable assets. This has given banks the option of using less liquid assets as collateral in Eurosystem operations and keeping highly liquid assets – particularly euro area central government bonds – for use in repo market transactions. The fact that the Eurosystem accepts a broad range of assets as collateral may have played an important role in the stabilisation of financial markets in the course of the turmoil.

Anecdotal evidence also suggests that, during the turmoil, assets have needed to be eligible for use in Eurosystem operations in order to be generally accepted in repo markets. A cash

lender is typically allowed to reuse collateral assets (i.e. it is entitled, where necessary, to use assets received as collateral in order to raise cash in a repo transaction). However, such reuse requires a party that is prepared to accept those assets as collateral. If an asset is eligible for use in Eurosystem operations, this ensures that it can indeed be reused in a transaction with a Eurosystem central bank. Moreover, if a borrower defaults, the lender of the relevant cash may need to quickly exchange that collateral for cash, at least on a temporary basis. If the collateral is eligible for use in Eurosystem

operations, this can be done in a Eurosystem liquidity-providing operation.

This article describes the impact that the financial market turmoil has had on repo markets and discusses the links between Eurosystem operations and repo markets that have proved most important during the turmoil. Section 2 compares the impact on the repo market with the impact on the unsecured money market. Section 3 discusses the performance of different segments of the repo market, while Section 4 provides a summary and looks to the future.

#### Box 1

##### REPOS: BASIC DEFINITIONS

A repo operation (i.e. a sale and repurchase agreement) is defined as an agreement between a cash borrower and a cash lender that stipulates that the cash borrower (also referred to as the “repo seller”):

- sells assets to the cash lender (or “repo buyer”) for a certain amount of cash (the repo’s “nominal amount”); and
- will buy these (or similar) assets back at a later date for the same amount of cash, plus interest as payment for the use of that cash.

Thus, a repo agreement involves two transactions: the sale and repurchase of assets. Economically, a repo is similar to a secured cash loan: the cash borrower receives a loan from the cash lender and provides assets as collateral. In a repo transaction, however, legal ownership of the assets is transferred from the borrower to the lender. This implies that the lender is allowed to sell the assets on to a third party, provided that it is able to buy them back in order to return the assets to the borrower when the transaction matures. If the borrower defaults on its obligation to pay back the cash (plus interest), the lender can liquidate the assets immediately, as it is the owner of those assets. It does not need to wait until insolvency procedures have been concluded. This means that a lender is better protected in a repo transaction than in a secured loan transaction.

The main elements of a repo are the maturity, the nominal amount, the repo rate, the collateral assets and the haircut. Most repos have a fixed maturity, which can range from one day to more than one year. There are three types of repo with a maturity of one day: overnight repos are traded and settled on the same day and mature the day after; tomorrow/next repos are settled one day after the trade and mature two days after the trade; and spot/next repos are settled two days after the trade and mature three days after the trade. Around 5% of repos are open repos,<sup>1</sup> in which both parties to the transaction may terminate the repo at any point in time.

<sup>1</sup> See ICMA European Repo Market Survey No 17, June 2009.



## ARTICLES

Euro repo markets  
and the financial  
market turmoil

The repo rate is the interest rate that determines the interest payment made by the cash borrower at the end of the repo (i.e. the percentage of the repo's nominal amount that is to be paid as interest). The majority of repos have a fixed repo rate, while floating rate repos account for around 9% of all repos.<sup>2</sup> In a floating rate repo, the repo rate is defined with reference to a rate such as the EONIA or the EURIBOR, to which a positive or negative spread is added. Thus, the repo rate changes when the reference rate changes.

Parties to a repo may agree on a specific asset (i.e. a specific ISIN code) as collateral. Such transactions are called "special repos". If, rather than a specific asset, the repo agreement specifies a basket of assets (i.e. a list of ISIN codes), the transaction is referred to as a "general collateral (GC)" repo. A GC basket may, for example, include bonds issued by euro area central governments. In a GC repo, the cash borrower (or its agent) decides which of the basket of assets to actually use as collateral. GC repos are always cash-driven – i.e. they come about because the cash borrower wishes to raise cash. Special repos are typically securities-driven – i.e. the repo is initiated by a cash lender searching for a specific asset. The cash lender may, for example, wish to sell the security short (i.e. without holding it), as it expects the price of the security to decline. In order to deliver the security in question, it first has to borrow that security through a special repo. The repo rates of special repos are often very close to GC repo rates, but they may be significantly below the GC repo rate if there is strong demand for that particular security. In this case, repo traders say that the security is "on special".

To ensure that both parties are protected against a default by their counterparty, the collateral value and the cash value of the repo should be close to each other. If the collateral value is lower, the cash lender incurs losses if the borrower defaults. If it is higher, the borrower incurs losses if the lender defaults. For that reason, the collateral is valued at the "dirty" (i.e. including the interest accrued) mid-market price. However, the market for the collateral asset may not be fully liquid, so there is a risk of the asset being sold for less than the mid-price. This is the main reason for the application of initial margins or haircuts. A haircut of 2%, for example, means that the market value of the collateral is supposed to be 2% higher than the nominal cash value of the repo. A 2% haircut is relatively common for collateral consisting of bonds issued by the central governments of industrial countries. By way of example, haircuts on bonds issued in emerging market countries may exceed 50%.

The market value of the collateral may change over the life of the repo. To adjust for asset price changes, variation margins are used. The collateral is marked to market, typically on a daily basis. If the collateral value declines, the borrower has to deposit additional assets. If the value of that collateral increases, assets are returned to it.

<sup>2</sup> See ICMA European Repo Market Survey No 17, June 2009.

## 2 REPO MARKETS AND UNSECURED MONEY MARKETS

### INTEREST RATE SPREADS

A good starting point for a comparison of the performance of the unsecured interbank market and the repo market is developments in interest

rate spreads in those two markets. When the turmoil began in August 2007, the unsecured interbank money market was significantly affected, and it has remained under pressure since then. Spreads between EURIBOR rates and overnight interest rate swap (OIS) rates, having been close to zero prior to August 2007, jumped to unprecedented levels within a few days.

When tensions peaked in September 2008 following Lehman Brothers' default, EURIBOR spreads increased even further to stand at levels close to 180 basis points for three-month maturities (see Chart 1).

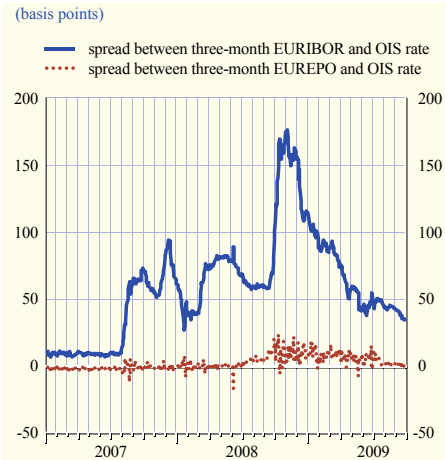
Repo rates depend on the quality of the assets used as collateral. If one is to compare repo rates with unsecured interbank market rates, one must first decide which of the various repo rates to consider. As euro area government bonds are the most commonly used asset in the euro repo market (see Section 3), it is reasonable to use EUREPO rates in this context. EUREPO rates are provided by the European Banking Federation and refer to GC repo transactions with euro area government bonds as collateral. As shown in Chart 1, spreads between EUREPO rates and OIS rates remained low on average until September 2008, before increasing somewhat in the wake of Lehman Brothers' default and returning to pre-turmoil levels in the third quarter of 2009. This clearly suggests that the turmoil has had much less impact on repo rates than on unsecured interbank market rates.

Two factors may have contributed to the resilience of EUREPO rates during the turmoil. First, high-quality collateral protects the cash lender against the risk of financial losses in the event of the borrower defaulting. This reduces the credit risk premium in EUREPO rates. Second, it is relatively easy for the cash lender to reuse high-quality collateral to borrow funds in the repo market or from the Eurosystem if need be. This reduces the funding liquidity risk premium in EUREPO rates. As will be discussed later, these two aspects play a less pronounced role when the quality of the collateral is lower.

#### VOLUMES

The turmoil has had a significant impact not only on interest rate spreads, but also on turnover in the unsecured interbank market. This market experienced strong and steady growth between 2002 and 2007, but contracted by 12% between

**Chart 1 Spreads between the three-month EURIBOR and EUREPO rates and the OIS rate**



Sources: Thomson Reuters and European Banking Federation.

the second quarter of 2007 (i.e. prior to the onset of the turmoil) and the second quarter of 2008, and by another 25% in the following year, bringing the market back to levels last seen in 2002 (see Chart 2).<sup>1</sup>

The repo market appears to have been affected to a similar extent in the first year of the turmoil, but less severely in the second year. Overall, turnover in the repo market grew more strongly than turnover in the unsecured interbank market between 2002 and 2007, before contracting by around 12% between the second quarter of 2007 and the second quarter of 2008, and growing by around 5% in the following year.

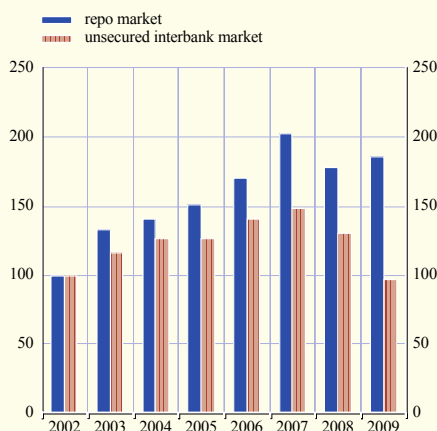
<sup>1</sup> This article's analysis of volumes in interbank markets is based on two sources: the ECB's Euro Money Market Survey and the European Repo Market Survey of the International Capital Market Association (ICMA). The Euro Money Market Survey is based on information provided by a panel of large banks and is conducted on an annual basis. Reporting banks provide data on their activities in unsecured money markets and repo markets during the second quarter of the reporting year. Quantitative data refer to market turnover in the interbank market (i.e. transactions between banks and non-banks are not included). The ICMA's European Repo Market Survey is also based on data reported by a panel of large banks. It covers only repo markets and includes data on outstanding amounts of repo transactions (i.e. open interest) as at two snapshot dates per year (one in June and one in December). The survey is published twice a year.

ARTICLES

Euro repo markets  
 and the financial  
 market turmoil

**Chart 2 Turnover (lending plus borrowing) in the interbank money market**

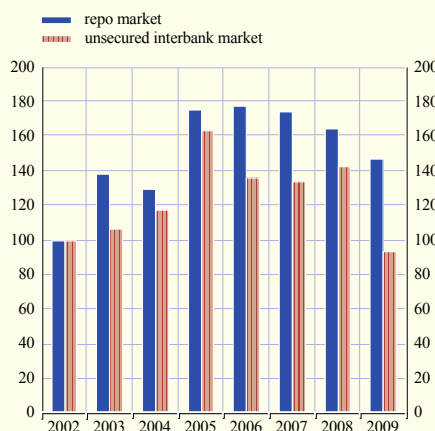
(index: 2002 = 100)



Source: ECB Euro Money Market Survey.  
 Note: Constant panel of 105 banks.

**Chart 3 Maturity-weighted turnover (lending plus borrowing) in the interbank money market**

(maturities of up to one year; index: 2002 = 100)



Source: ECB Euro Money Market Survey.  
 Note: Constant panel of 105 banks.

The data displayed in Chart 2 do not take into account the maturity of transactions. A repo with a maturity of one day and a one-year repo are treated in the same way. It is therefore important to complement this analysis with data on maturity-weighted turnover.<sup>2</sup> Maturity-weighted turnover is a better indicator of the size of the repo market than pure turnover. As Chart 3 shows, maturity-weighted turnover in the repo market declined from 2007 to 2008, and again from 2008 to 2009. In the unsecured interbank market, this measure increased slightly from 2007 to 2008, before declining sharply the following year. The total decline in maturity-weighted turnover between the second quarter of 2007 and the second quarter of 2009 was 16% in the repo market and around 31% in the unsecured interbank market.

However, it is important to note that indicators of the size of the repo market may be sensitive to changes in their methodology. As mentioned above, Chart 3 – which is based on the ECB's Euro Money Market Survey – shows a 16% decline in maturity-weighted turnover in repo markets between the second quarter of 2007 and the second quarter of 2009. Data in the ICMA's

European Repo Market Surveys (see Chart 4) indicate a 35% decline in outstanding amounts in European repo markets between June 2007 and June 2009, compared with a 16% decline in maturity-weighted turnover.

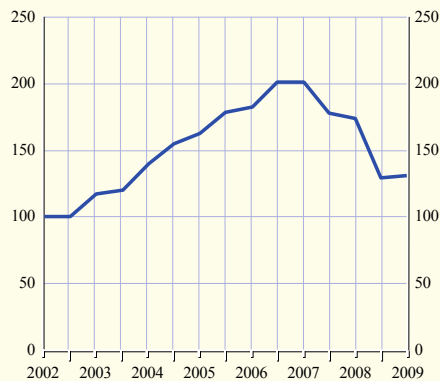
Overall, the data suggest that euro repo market volumes have declined significantly as a consequence of the turmoil, but probably somewhat less than volumes in unsecured euro money markets. What could explain these developments?

Four main factors could explain the declines observed in repo market volumes. First, banks typically started to deleverage after the onset of the turmoil. Bank balance sheets have been shrinking for more than two years now, which may have had a negative impact on banking activities – particularly lending and borrowing activities. As will be shown below, that deleveraging has also resulted in a sharp reduction in short-selling activities. As a consequence, turnover in the special repo segment has contracted, while the GC repo market has suffered

<sup>2</sup> Maturity-weighted turnover is the sum of the volumes of all transactions multiplied by the respective number of days to maturity.

**Chart 4 Outstanding amounts (lending plus borrowing) in European repo markets**

(index: June 2002 = 100)



Sources: ICMA European Repo Market Surveys and ECB calculations.

Notes: The number of banks participating varies from survey to survey, so the total outstanding amounts in the various surveys are not comparable. However, each survey provides information on the percentage change in the outstanding amounts of those banks that participated in the three most recent surveys. This chart has been produced on the basis of that information.

less. Second, central banks have intermediated between banks. The Eurosystem, for example, increased the amount of euro-denominated credit provided to counterparties from less than €500 billion in the third quarter of 2008 to more than €800 billion in the final quarter of 2008, when tensions in financial markets peaked. The increased provision of liquidity has allowed banks to borrow more from the Eurosystem and less in the interbank market. This has created excess liquidity, which has been returned to the Eurosystem's deposit facility. Thus, the Eurosystem's liquidity measures have replaced some transactions in the interbank market. Third, as will be discussed in more detail in Section 3, although most of the assets used as collateral in the repo market are of relatively high quality, less liquid assets are used in some repo market segments. These assets provide the cash lender with less protection against losses in the event of the borrower defaulting, and it may be difficult for the lender to reuse them. As a consequence, the use of such assets as collateral has become more costly (and in many cases impossible) during the turmoil. Fourth, some market participants have been under severe pressure and unable

to borrow funds despite being able to provide high-quality collateral, as lenders have wanted, given the high degree of uncertainty, to avoid any risks related to defaulting counterparties in repos. Nevertheless, the fact that repo transactions are, to a large extent, secured by high-quality assets is certainly the main reason why repo markets have probably been less affected by the turmoil than the unsecured interbank market.

Interestingly, as a paper published in the BIS Quarterly Review<sup>3</sup> pointed out, the US repo market has experienced more problems than the euro repo market. Three major factors may have contributed to this. First, large investment banks dominate the US repo markets. These institutions had no access to central bank credit and therefore came under particularly severe pressure when the financial turmoil intensified, with the result that they had to scale back their repo market activities more than most of the major European players. Second, prior to the turmoil, non-government bonds (particularly agency bonds, agency mortgage-backed securities and corporate bonds) played a more important role in the US repo market. After the onset of the turmoil, cash markets for such bonds dried up significantly, with the result that there was little possibility to use these bonds as collateral in repo markets. This led to considerable demand for – and a relative lack of – US Treasury bonds and an increase in the number of Treasury settlement failures around March 2008 and after Lehman Brothers' default. To mitigate these problems, the Federal Reserve introduced the Term Securities Lending Facility in March 2008. This facility allows counterparties to exchange certain less liquid securities for government bonds. Third, the Eurosystem has always accepted a broad range of assets (particularly non-government bonds) as collateral. Eurosystem counterparties have therefore been able to use less liquid assets as collateral in Eurosystem operations and keep their most liquid assets for use in the interbank repo market (see Box 2 below). In the United States, prior to the turmoil, most Federal Reserve

<sup>3</sup> P. Hördahl and M. R. King, "Developments in repo markets during the financial turmoil", BIS Quarterly Review, December 2008.

ARTICLES

Euro repo markets  
 and the financial  
 market turmoil

operations required banks to use government bonds and other very liquid assets so that these assets could not be used in the repo market. This has changed, however, over the course of the turmoil, with the Federal Reserve' introduction of various new facilities for less liquid bonds.

### MATURITIES

Anecdotal evidence originally suggested that the term money market segments (i.e. markets for transactions with a maturity of more than one day) have been hit harder by the turmoil than the overnight market. Indeed, term money markets were occasionally described by market participants as completely illiquid. This assessment was based mainly on the observation that, in the course of the turmoil, unsecured money market spreads have widened much more at the long end of the money market yield curve than at the short end.

However, according to the ECB's Money Market Survey, the average maturity of repo transactions with a maturity of up to one year increased from 6.6 days in the second quarter of 2007 to 7.2 days one year later and only then decreased to stand at 6.1 days in the second quarter of 2009. In the unsecured money market, the average maturities were 5.2 days, 6.2 days and 5.5 days over the same period. This contradicts, to some extent, the anecdotal evidence of shortening maturities.

This may be a reflection of: (i) banks' need to address the maturity structure of their liabilities; and (ii) central bank operations. Prior to the turmoil, many banks used to refinance long-term assets using short-term liabilities, which then had to be rolled over periodically. During the turmoil, however, this strategy has proved risky, as rolling over loans has not been as easy as it was before. As a consequence, demand for longer-term interbank funds has increased, despite the higher spreads that have to be paid for such funds, which led to an increase in average maturities in the interbank market in the first year of the turmoil, despite cash-rich banks' reluctance to lend funds for more than one week.

Following Lehman Brothers' default the Eurosystem began using fixed rate tender procedures with full allotment in all liquidity-providing operations, including longer-term refinancing operations with maturities of up to one year. This has allowed banks with sufficient amounts of eligible collateral to borrow any funds needed from the Eurosystem at the ECB's main refinancing rate. This measure has eliminated the rollover risk for most banks and may explain the reduction in average maturities from 2008 to 2009.

### 3 THE IMPACT OF THE TURMOIL ON DIFFERENT REPO MARKET SEGMENTS

#### GC AND SPECIAL REPOS

As described in Box 1, GC repos are used mainly to raise funds (i.e. they are cash-driven), while special repos are often securities-driven and part of short-selling strategies. With the onset of the turmoil, the funding motive has become more important, while short-selling has declined significantly. For example, GC repos' share of total repo turnover increased from 5% prior to the turmoil to almost 30% in the second quarter of 2009 for the three electronic repo trading platforms BrokerTec, MTS and Eurex Repo (see Chart 5).<sup>4</sup> Market participants also confirm that a smaller number of bonds have been "on special" since August 2007. This indicates that the reduction in repo market activity described in the previous section is not least a consequence of reduced short-selling activity. The turmoil may thus have led to a structural shift towards the funding motive in the repo market.

This finding should not come as a surprise, as two factors have played an important role in banks' strategy during the turmoil. First, as indicated, banks have had to deleverage. As a consequence, they have scaled down their short-selling. Second, banks have had to raise funds, and it has been difficult to obtain these with

<sup>4</sup> Electronic trading platforms currently account for almost 30% of repos.

**Chart 5 GC repos as a share of total euro repo turnover on electronic platforms**

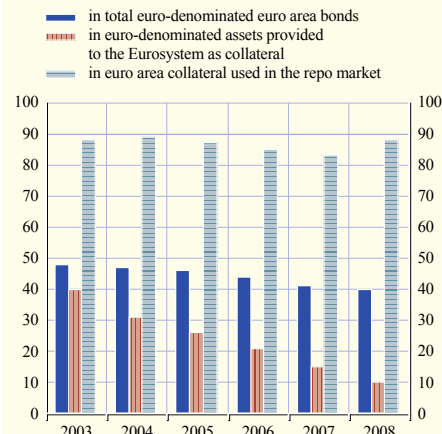
(percentages)



Sources: BrokerTec, MTS and Eurex Repo.  
 Note: Eurex Repo's GC Pooling is not included.

**Chart 6 Share of euro-denominated euro area central government bonds**

(percentage)



Sources: ICMA European Repo Market Surveys, ECB and ECB calculations.  
 Notes: Data on Eurosystem collateral refer to annual averages. All other data refer to the December of the relevant year.

acceptable conditions in the unsecured money market. GC repos have proved a relatively good alternative as long as it has been possible to use high-quality collateral. The repo market as a whole has contracted, but the GC repo market may, to some extent, have replaced the unsecured money market.

#### GOVERNMENT BOND REPOS VERSUS CREDIT REPOS

Any analysis of repo markets during the turmoil has to take into account the various types of asset that are used as collateral in the repo market. In principle, any type of security may be used. However, central government bonds account for the vast majority (80-90%) of repo collateral in Europe (see Chart 6). By way of comparison, only 40% of all outstanding euro-denominated bonds were euro area central government bonds in 2008. Interestingly, while government bonds' share of euro area bond markets as a whole (and specifically of the collateral provided to the Eurosystem) continued to decline from 2007 to 2008, this was not the case for the repo market,

where central government bonds accounted for 83% of the market at the end of 2007 and 88% at the end of 2008. It is reasonable to assume that this trend towards the use of government bonds as collateral in repo markets reflects a flight to high-quality collateral in the wake of the increased tensions that followed Lehman Brothers' default. As the financial programmes introduced by governments in order to mitigate the recession and support the financial system led to more government bond issuance, and as banks may need to hold more government bonds as a liquidity buffer for the future, the share of government bonds in repo market collateral is likely to remain considerable in the coming years.

Other indications that the financial market turmoil has had an impact on the type of collateral used in the interbank repo market relate to the tri-party repo market. A tri-party repo is a repo where the cash lender and cash borrower outsource the collateral management to a specialist third party – the tri-party agent. The borrower and the lender agree on a basket of assets that can be used as collateral.

ARTICLES

Euro repo markets  
and the financial  
market turmoil

The tri-party agent then defines and updates the prices of the assets and determines the assets that will actually be used. It does so primarily with the aim of reducing the collateral costs of the borrower.

The share of illiquid assets is much larger for tri-party repos than for other repos between market participants. This is because tri-party agents specialise in the pricing of illiquid assets. Two of the major tri-party agents in Europe are Euroclear Bank and Clearstream Banking Luxembourg, the two international central securities depositories (ICSDs). As settlement institutions, the ICSDs can extract detailed information on asset prices from their own settlement data.

Indeed, structured securities such as asset-backed securities account for a substantial share of collateral in tri-party repos. However, as data from Clearstream Banking Luxembourg confirm, the turmoil reduced the share of structured securities from 35% in June 2007 to 25% in September 2007. Moreover, the share of government bonds in total tri-party repos reported for the ICMA European Repo Market Survey has increased from between 20% and 30% prior to the turmoil to 53% in June 2009. This may reflect the view, as expressed by many market participants, that it has been impossible (even for tri-party agents) to define adequate prices for structured securities and many other private sector papers. As a consequence, such assets have been used less often, being replaced by more liquid assets for which reliable market prices can be found.

These interpretations are very much supported by developments in collateral haircuts for repos and developments in repo rate spreads for different types of collateral during the turmoil. Haircuts have increased for most asset classes, but particularly strong increases have been observed for structured securities, for which haircuts of up to 100% have been observed, meaning that these assets have no longer been able to be used as collateral.<sup>5</sup> Hedge funds and other unrated borrowers have been affected

most, but even the haircuts required of major banks have increased significantly.

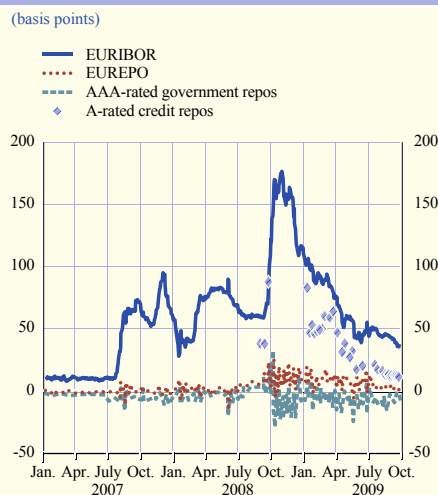
GC repo rate spreads for different types of collateral are displayed in Chart 7. As discussed above, EUREPO spreads have remained relatively close to zero for most of the turmoil to date, while EURIBOR spreads reached levels in excess of 150 basis points after Lehman Brothers' default. Spreads for A-rated credit repos<sup>6</sup> were, however, fairly close to EURIBOR spreads for several months following Lehman Brothers' default. The spreads observed for credit repos more closely resemble those seen for the EURIBOR than those recorded for the EUREPO.

These findings are consistent with developments observed in the collateral used in Eurosystem credit operations. Article 18.1 of the Statute of the ESCB requires that all credit provided by the Eurosystem be collateralised.

<sup>5</sup> See, for example, Section 5 of the ECB publication "EU banks' funding structure and policies", May 2009.

<sup>6</sup> Credit repos are collateralised using private sector securities rather than government bonds.

Chart 7 Spreads vis-à-vis OIS rates at the three-month maturity



Sources: Thomson Reuters, European Banking Federation and JPMorgan (for credit repo rates).  
 Note: Rates for A-rated credit repos are available only for infrequent snapshot dates prior to August 2009.



The Eurosystem accepts a broad range of assets as collateral, including central and regional government bonds, corporate and covered and uncovered bank bonds, asset-backed securities and non-marketable assets, such as credit claims (i.e. bank loans). In October and November 2008 the Eurosystem further extended, on a temporary basis, the list of assets eligible for use as collateral in order to complement the policy of full allotment at a fixed rate applied in all open market operations since then.<sup>7</sup> Assets need to fulfil a set of criteria in order to be eligible for use in Eurosystem operations. These criteria can be found in the ECB's General Documentation.<sup>8</sup> A list of all marketable eligible assets is published on the ECB's website. The decision as to which assets on that list a credit institution uses to collateralise credit provided by the Eurosystem is largely at the discretion of the relevant credit institution.<sup>9</sup>

As Chart 6 shows, the share of central government bonds in the assets used as collateral in Eurosystem operations has declined continuously over the past six years. Moreover, the share of structured securities has been increasing, particularly since the start of the turmoil. Thus, the trend observed in the composition of collateral deposited with the Eurosystem is the opposite of that observed for collateral in repo markets. A discussion of this observation is provided in Box 2 below.

7 See the ECB press releases of 15 October 2008 and 7 May 2009. Assets that have been eligible since October and November 2008 include marketable debt instruments denominated in US dollars, pounds sterling and Japanese yen, as well as assets with a rating between A- and BBB-.

8 General Documentation on Eurosystem monetary policy instruments and procedures, November 2008.

9 The Eurosystem applies collateral concentration limits to the use of uncovered bank bonds and does not allow a credit institution to use assets as collateral if the credit institution has "close links" with the issuer of those assets.

## Box 2

### THE USE OF COLLATERAL IN REPO MARKETS AND EUROSISTEM CREDIT OPERATIONS

The question of which assets are used as collateral in repo transactions between private parties is – like the haircuts and the repo rate – a matter for negotiation. In principle, the two parties can agree on any transferable assets. However, in most cases only very liquid assets (particularly central government bonds) are used.

Why are less liquid assets, such as corporate bonds and asset-backed securities, hardly ever used? It may be argued that these imply a lower level of protection for the cash lender. Illiquid assets are difficult to mark to market, so valuation mistakes over the life of the repo are likely. And even if the assets have been valued correctly, the liquidation price of illiquid assets may be much lower than the previous market price. If the borrower defaults, therefore, the lender may be able to sell illiquid collateral assets only at a loss.

However, this line of argument is incomplete, as larger haircuts can be applied to illiquid assets to ensure that the lender is not less protected than it would be if central government bonds were used as collateral. It is not necessarily true, therefore, that illiquid assets imply a lower level of protection for the lender.

To complete this line of argument, it should be noted that the borrower may not be prepared to accept large haircuts, as these imply additional costs for the borrower in terms of collateral. But what are the costs of highly illiquid collateral such as asset-backed securities?



ARTICLES

Euro repo markets  
 and the financial  
 market turmoil

In this context, it is important to bear in mind that the borrower is not the only party that could default. The lender could, of course, also default. If the lender in a repo transaction defaults, the collateral will not usually be returned to the borrower. The repo will be terminated when the default is announced and the collateral will be valued. If the value of the collateral exceeds the cash value, the borrower will keep the cash, but will still have a net claim on the lender, which may be lost in part or in full. The expected net claim – and thus the potential losses – will be larger when the haircuts are large. As a consequence, the borrower will be reluctant to accept large haircuts. Thus, the additional expected losses that stem from accepting larger haircuts can be interpreted as collateral costs.<sup>1</sup>

As a consequence, the borrower may wish to provide illiquid assets as collateral, provided that the lender accepts small haircuts. However, small haircuts on illiquid collateral will not normally be acceptable to the lender. The two parties will therefore agree to first employ the most liquid assets as collateral, with relatively small haircuts. Less liquid assets will be used only if the borrower does not have any more liquid assets available.

This explanation for the large share of central government bonds in repo market collateral is based on the assumption that there is a chance of the cash lender defaulting. If the lender cannot default, the borrower might be less reluctant to accept large haircuts on less liquid assets. This leads to the conclusion that banks may prefer to use less liquid assets as collateral with the central bank, an institution that will hardly ever default, even if central bank haircuts on such assets are relatively large. In addition, this strategy allows banks to save more liquid assets for their borrowing activities in the private repo market.

<sup>1</sup> For a more detailed discussion, see C. Ewerhart and J. Tapking, “Repo markets, counterparty risk and the 2007/2008 liquidity crisis”, ECB Working Paper No 909, 2008.

Finally, referring back to Chart 7, it should be noted that government bond repo spreads during the turmoil have been very much dependent on the issuing government, particularly in the first two quarters of 2009. It was at this time that the yield spreads of euro area government bonds vis-à-vis German government bonds widened significantly as the creditworthiness of some euro area governments was occasionally questioned by market participants as a consequence of significant government intervention. As Chart 7 shows, AAA-rated government bond repo spreads were lower than EUREPO spreads during that period. As described above, EUREPO rates relate to GC repo transactions with euro area government bonds as collateral, including bonds rated below AAA. AAA-rated government bond repo spreads declined somewhat at the peak of the turmoil and reached negative levels, indicating considerable demand for such papers in the repo

market at that time and reflecting the perception that even overnight unsecured lending involved some degree of credit risk.

#### CENTRAL COUNTERPARTY CLEARING

An important strategy with a view to mitigating some of the risks stemming from repo transactions is the use of central counterparty clearing houses (CCPs). CCPs are institutions that offer what is called “novation”: once two parties have concluded a repo trade, the CCP steps in between them and the original repo trade is replaced by two new transactions – one between the cash borrower and the CCP (in which the CCP receives collateral from and lends funds to the cash borrower), and one between the CCP and the cash lender (in which the CCP provides collateral to and receives funds from the cash lender). Even if one party to the original transaction fails to fulfil its obligations

(i.e. its obligations towards the CCP), the other party will still not suffer any loss, as the transaction between that second party and the CCP will still be settled. Only if the CCP fails to fulfil its obligations will non-defaulting parties potentially suffer losses. This, however, is very unlikely, as CCPs are very safe institutions that apply strict risk management measures.

For the cash lender, CCP clearing is attractive in principle if there is a significant risk of both the cash borrower defaulting and the cash value of the repo transaction (including interest) exceeding the liquidation value of the collateral (measured, for example, by the bid price) at the moment of default. For the cash borrower, CCP clearing is attractive if there is a significant risk of both the cash lender defaulting and the collateral's repurchase value (measured, for example, by the ask price) exceeding the cash value. Thus, it is conceivable that the share of repos cleared through a CCP will increase when both: (i) the probability of default increases; and (ii) collateral assets become more illiquid.<sup>10</sup> As a consequence of the financial turmoil, market participants have a strong incentive to reduce credit risk in their operations through increased recourse to CCP clearing, and regulation is being considered in Europe and the United States to channel standardised over-the-counter transactions into CCP clearing.

The ICMA European Repo Market Survey provides data on the percentage of repos traded (anonymously) in an electronic trading system and cleared in a CCP. These accounted for between 9% and 15% of repo trades in the four surveys prior to the turmoil and between 10% and 18% during the turmoil to date, with a peak of 18% observed in December 2008 following Lehman Brothers' default. Since June 2008 the ICMA survey has also provided data on the percentage of repos cleared in a CCP, including non-electronic repos. This was at 24% in June 2008, had increased to 33% by December 2008 and stood at 32% in June 2009.

Thus, these data confirm that CCP clearing has increased somewhat during the turmoil as a consequence of heightened concerns regarding counterparty credit risk, which has also affected the repo market.

#### 4 SUMMARY AND OUTLOOK

Two main trends have characterised the euro repo market during the financial market turmoil: a flight to quality and the growing importance of the funding motive. That flight to quality can be seen in both the increased share of government bonds in the collateral employed in repo markets and the greater use of CCPs. The fact that GC repos have increased relative to special repos indicates that the repo market is increasingly being used as a funding market and may have replaced some activities in the unsecured money market. Nevertheless, the repo market has clearly suffered as a result of the turmoil.

The interrelationship between Eurosystem monetary policy operations and repo markets has become pronounced during the turmoil. On the one hand, the increases in the volume of monetary policy operations have led to those operations replacing some interbank repos and thus have had a negative impact on turnover. On the other hand, the fact that the Eurosystem accepts a very broad range of assets as collateral in its operations has helped to improve the availability of high-quality collateral in the interbank repo market.

An important question concerns the extent to which the repo market trends triggered by the turmoil will be reversed following the end of the turmoil. It may be that non-government bonds regain their important role as collateral when

<sup>10</sup> Price volatility might play a less important role than the liquidity of assets, as frequent marking to market and margin calls should ensure that the collateral value as measured by the mid-price (i.e. the average of the bid price and the ask price) is always very close to the cash value.

they become sufficiently liquid. However, the requirements regarding the liquidity of assets employed as collateral in interbank repos may become more demanding in the future. Similarly, banks may soon return to short-selling strategies. However, given their advantages as regards banks' credit and liquidity risk management, it may be that repos are used more for funding purposes than was the case prior to August 2007. Indeed, the repo market may be one of those markets that gain in importance in the medium term as a result of the turmoil.

#### ARTICLES

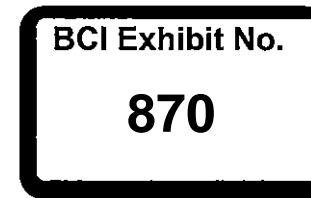
Euro repo markets  
and the financial  
market turmoil

**BCI Ex. 870**

Robert MacGoey/US/ABAS/PwC

12/23/2008 07:27 PM

To <Sean.Teague@barclayscapital.com>@INTL  
cc James.Walker@barclayscapital.com,  
Marcus.Morton@barclayscapital.com, Michael  
Guarnuccio/US/ABAS/PwC@Americas-US, Jon  
Holloway/UK/ABAS/PwC@EMEA-UK@INTL  
bcc  
Subject Re: FW: Lehmans005B0000000007F0DEB800000000000



Sean

In response to your queries yesterday I wanted to clarify the points below. I have cc'd James and Marcus to ensure we are all on the same page.

The acquisition was effective prior to open of business in the UK on 9/22

The majority of the securities had been received prior to that date and were legally owned and controlled by BarCap as of open of business 9/22

Closing price 9/19 was used as the indicative price for opening 9/22

However, given the turmoil in the markets there was further downward pressure on prices on the weekend (9/20, 9/21) and therefore we suggested that this maybe something that you would want to capture

Jon Holloway spoke with Marcus and our understanding was that you were going to use 9/22 closing-mid prices on the basis that you can't get intra-day numbers and the S&P opening is a poor proxy for much of what BarCap purchased. We believe this is a reasonable approach however it will be important for Management to document the rationale.

Just to confirm that we do not believe that any price movements post 9/22 should be captured in the bid/offer reserve.

As it relates to the adjustment from mid to bid, we have not received any documentation to support why the standard deviation of the pricing vendors is reasonable and therefore the approx. \$500m of bid/offer adjustment remains an open item.

However, I believe that Marcus noted that Management have found exchange quotes supporting the bid/offer. Please confirm that this is the case or if you are planning on providing any additional information supporting the rationale for the approach described in 7.

I understand that everyone at BarCap is taking some well deserved time-off. The above will require a repricing of the portfolio at 9/22 and some re-working of the bid-offer adjustment. In addition, the JPM portfolio now has to be priced at the receipt date in December (note that our valuation specialists provided comments on the sub-prime matrix used and the categorization of certain CDOs & CLOs). Please let us know when you expect to be able to provide this information? Note that we are expected to provide initial clearance at the Chris Lucas et al meeting on 1/19 and the opening balance sheet will have to be completed by then. Realistically, this means that we will need to receive the above by 1/9 at the very latest, which gives us 5 business days to review, provide comments and resolve any issues.

Rob

---

Robert MacGoey | Banking & Capital Markets Assurance Services | PricewaterhouseCoopers | Telephone: +1 646 471 4632 | Facsimile: +1 813 329 5758 | [robert.macgoey@us.pwc.com](mailto:robert.macgoey@us.pwc.com)

<Sean.Teague@barclayscapital.com>

12/23/2008 02:58 PM

"Reply to All" is Disabled

To  
Robert MacGoey/US/ABAS/PwC@Americas-US

cc

Subject  
FW: Lehmans

Robert,

Perhaps you can provide clarity on the 09/22 valuation date and how PWC perceives this will change Barclays "valuation adjustment" calculation.

-Sean

>  
> From: Morton, Marcus: Finance (NYK)  
> Sent: Friday, December 19, 2008 9:18 AM  
> To: Teague, Sean: Finance (NYK)  
> Subject: Lehmans  
>  
> Sean  
>  
> Can we look at the liquid assets in the Original Lehman portfolio and  
> see what the price would be on 9/22. Apparently this is the date that  
> has been agreed that we legally took ownership. Don't worry about any  
> ABS. Washtell is looking at the Equities. Mostly need you to look at  
> treasury/agency paper.  
>  
> Also can you confirm if there is any Equity in the JPM portfolio  
>  
> Thanks  
>  
> M

---

This e-mail may contain information that is confidential, privileged or otherwise protected from disclosure. If you are not an intended recipient of this e-mail, do not duplicate or redistribute it by any means. Please delete it and any attachments and notify the sender that you have received it in error. Unless specifically indicated, this e-mail is not an offer to buy or sell or a solicitation to buy or sell any securities, investment products or other financial product or service, an official confirmation of any transaction, or an official statement of Barclays. Any views or opinions presented are solely those of the author and do not necessarily represent those of Barclays. This e-mail is subject to terms available at the following link: [www.barcap.com/emaildisclaimer](http://www.barcap.com/emaildisclaimer). By messaging with Barclays you consent to the foregoing. Barclays Capital is the investment banking division of Barclays Bank PLC, a company registered in England (number 1026167) with its registered office at 1 Churchill Place, London, E14 5HP. This email may relate to or be sent from other members of the Barclays Group.

---

**BCI Ex. 872**

IAS 39

**International Accounting Standard 39**

## **Financial Instruments: Recognition and Measurement**

*This version includes amendments resulting from IFRSs issued up to 31 December 2009.*

IAS 39 *Financial Instruments: Recognition and Measurement* was issued by the International Accounting Standards Committee (IASC) in March 1999. In November 2000 IASC issued five limited revisions to IAS 39.

In March 2000 IASC approved an approach to publishing implementation guidance on IAS 39 in the form of Questions and Answers. Subsequently the IAS 39 Implementation Guidance Committee (IGC), which was established by IASC for that purpose, published a series of Questions and Answers on IAS 39. The guidance was not considered by IASC and did not necessarily represent its views.

In April 2001 the International Accounting Standards Board (IASB) resolved that all Standards and Interpretations issued under previous Constitutions continued to be applicable unless and until they were amended or withdrawn.

In June 2003, the IASB made a limited amendment to IAS 39 when it issued IFRS 1 *First-time Adoption of International Financial Reporting Standards*.

In December 2003 the IASB issued a revised IAS 39, accompanied by Implementation Guidance replacing that published by the former IGC.

Since 2003, the IASB has issued the following amendments to IAS 39:

- *Fair Value Hedge Accounting for a Portfolio Hedge of Interest Rate Risk* (issued March 2004)
- *Transition and Initial Recognition of Financial Assets and Financial Liabilities* (issued December 2004)
- *Cash Flow Hedge Accounting of Forecast Intragroup Transactions* (issued April 2005)
- *The Fair Value Option* (issued June 2005)
- *Financial Guarantee Contracts* (issued August 2005)
- *Eligible Hedged Items* (issued July 2008)<sup>\*</sup>
- *Reclassification of Financial Assets* (Amendments to IAS 39 and IFRS 7) (issued October 2008)<sup>†</sup>
- *Reclassification of Financial Assets—Effective Date and Transition* (Amendments to IAS 39 and IFRS 7) (issued November 2008).<sup>†</sup>
- *Embedded Derivatives* (Amendments to IFRIC 9 and IAS 39) (issued March 2009)<sup>§</sup>

<sup>\*</sup> effective date 1 July 2009

<sup>†</sup> effective date 1 July 2008

<sup>§</sup> effective date 30 June 2009

**BCI Exhibit No.**

**872**



## IAS 39

IAS 39 and its accompanying documents have also been amended by the following IFRSs:

- IFRS 2 *Share-based Payment* (issued February 2004)
- IFRS 3 *Business Combinations* (issued March 2004)
- IFRS 4 *Insurance Contracts* (issued March 2004)
- IFRIC 5 *Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds* (issued December 2004)
- IFRS 7 *Financial Instruments: Disclosures* (issued August 2005)
- IAS 1 *Presentation of Financial Statements* (as revised in September 2007)\*
- IFRS 3 *Business Combinations* (as revised in January 2008)†
- IAS 27 *Consolidated and Separate Financial Statements* (as amended in January 2008)†
- *Puttable Financial Instruments and Obligations Arising on Liquidation* (Amendments to IAS 32 and IAS 1) (issued February 2008)†
- *Improvements to IFRSs* (issued May 2008)†
- *Improvements to IFRSs* (issued April 2009)§
- IFRS 9 *Financial Instruments* (issued November 2009).º

As well as IFRIC 5, the following Interpretations refer to IAS 39:

- SIC-27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease* (issued December 2001; the Basis for Conclusions has subsequently been amended)
- IFRIC 2 *Members' Shares in Co-operative Entities and Similar Instruments* (issued November 2004)
- IFRIC 9 *Reassessment of Embedded Derivatives* (issued March 2006)
- IFRIC 10 *Interim Financial Reporting and Impairment* (issued July 2006)
- IFRIC 12 *Service Concession Arrangements* (issued November 2006 and subsequently amended)
- IFRIC 16 *Hedges of a Net Investment in a Foreign Operation* (issued July 2008)‡
- IFRIC 19 *Extinguishing Financial Liabilities with Equity Instruments* (issued November 2009).#

---

\* effective date 1 January 2009

† effective date 1 July 2009

§ effective dates 1 January 2009 and 2010

º effective date 1 January 2013 (earlier application permitted)

‡ effective date 1 October 2008

# effective date 1 July 2010 (earlier application permitted)

IAS 39

## CONTENTS

*paragraphs*

### INTRODUCTION

### **INTERNATIONAL ACCOUNTING STANDARD 39 FINANCIAL INSTRUMENTS: RECOGNITION AND MEASUREMENT**

<b>OBJECTIVE</b>	<b>1</b>
<b>SCOPE</b>	<b>2–7</b>
<b>DEFINITIONS</b>	<b>8–9</b>
<b>EMBEDDED DERIVATIVES</b>	<b>10–13</b>
<b>RECOGNITION AND DERECOGNITION</b>	<b>14–42</b>
Initial recognition	14
Derecognition of a financial asset	15–37
Transfers that qualify for derecognition	24–28
Transfers that do not qualify for derecognition	29
Continuing involvement in transferred assets	30–35
All transfers	36–37
Regular way purchase or sale of a financial asset	38
Derecognition of a financial liability	39–42
<b>MEASUREMENT</b>	<b>43–65</b>
Initial measurement of financial liabilities	43–44
Subsequent measurement of financial liabilities	47
Fair value measurement considerations	48–49
Reclassifications	50–54
Gains and losses	55–57
Impairment and uncollectibility of financial assets measured at amortised cost	58–65
<b>HEDGING</b>	<b>71–102</b>
Hedging instruments	72–77
Qualifying instruments	72–73
Designation of hedging instruments	74–77
Hedged items	78–84
Qualifying items	78–80
Designation of financial items as hedged items	81–81A
Designation of non-financial items as hedged items	82
Designation of groups of items as hedged items	83–84
Hedge accounting	85–102
Fair value hedges	89–94
Cash flow hedges	95–101
Hedges of a net investment	102

IAS 39

<b>EFFECTIVE DATE AND TRANSITION</b>	<b>103–108C</b>
<b>WITHDRAWAL OF OTHER PRONOUNCEMENTS</b>	<b>109–110</b>
<b>APPENDIX A:</b>	
<b>Application guidance</b>	
<b>Scope</b>	<b>AG1–AG4A</b>
<b>Definitions</b>	<b>AG4B–AG15</b>
Designation as at fair value through profit or loss	AG4B–AG4K
Effective interest rate	AG5–AG8
Derivatives	AG9–AG12A
Transaction costs	AG13
Financial liabilities held for trading	AG14–AG15
<b>Embedded derivatives</b>	<b>AG27–AG33B</b>
Instruments containing embedded derivatives	AG33A–AG33B
<b>Recognition and derecognition</b>	<b>AG34–AG63</b>
Initial recognition	AG34–AG35
Derecognition of a financial asset	AG36–AG52
<i>Transfers that qualify for derecognition</i>	AG45–AG46
<i>Transfers that do not qualify for derecognition</i>	AG47
<i>Continuing involvement in transferred assets</i>	AG48
<i>All transfers</i>	AG49–AG50
<i>Examples</i>	AG51–AG52
Regular way purchase or sale of a financial asset	AG53–AG56
Derecognition of a financial liability	AG57–AG63
<b>Measurement</b>	<b>AG64–AG93</b>
Initial measurement of financial liabilities	AG64
Fair value measurement considerations	AG69–AG82
<i>Active market: quoted price</i>	AG71–AG73
<i>No active market: valuation technique</i>	AG74–AG79
<i>No active market: derivatives on unquoted equity instruments</i>	AG80–AG81
<i>Inputs to valuation techniques</i>	AG82
Gains and losses	AG83
Impairment and uncollectibility of financial assets measured at amortised cost	AG84–AG93
<i>Interest income after impairment recognition</i>	AG93
<b>Hedging</b>	<b>AG94–AG132</b>
Hedging instruments	AG94–AG97
<i>Qualifying instruments</i>	AG94–AG97
Hedged items	AG98–AG101
<i>Qualifying items</i>	AG98–AG99BA
<i>Designation of financial items as hedged items</i>	AG99C–AG99F
<i>Designation of non-financial items as hedged items</i>	AG100

IAS 39

<i>Designation of groups of items as hedged items</i>	AG101
Hedge accounting	AG102–AG132
<i>Assessing hedge effectiveness</i>	AG105–AG113
<i>Fair value hedge accounting for a portfolio hedge of interest rate risk</i>	AG114–AG132

**Transition** **AG133**

**APPENDIX B:**  
**Amendments to other pronouncements**

FOR THE ACCOMPANYING DOCUMENTS LISTED BELOW, SEE PART B OF THIS EDITION
---

**APPROVAL BY THE BOARD OF IAS 39 ISSUED IN DECEMBER 2003**

**APPROVAL BY THE BOARD OF AMENDMENTS TO IAS 39:**

*Fair Value Hedge Accounting for a Portfolio Hedge of Interest Rate Risk* issued in March 2004

*Transition and Initial Recognition of Financial Assets and Financial Liabilities*  
 issued in December 2004

*Cash Flow Hedge Accounting of Forecast Intragroup Transactions* issued in April 2005

*The Fair Value Option* issued in June 2005

*Financial Guarantee Contracts (Amendments to IAS 39 and IFRS 4)* issued in August 2005

*Eligible Hedged Items* issued in July 2008

*Reclassification of Financial Assets (Amendments to IAS 39 and IFRS 7)*  
 issued in October 2008

*Reclassification of Financial Assets—Effective Date and Transition*  
 (Amendments to IAS 39 and IFRS 7) issued in November 2008

*Embedded Derivatives (Amendments to IFRIC 9 and IAS 39)* issued in March 2009\*

**BASIS FOR CONCLUSIONS**

**DISSENTING OPINIONS**

**ILLUSTRATIVE EXAMPLE**

**IMPLEMENTATION GUIDANCE**

---

\* In this edition this document is presented with IFRIC 9.

IAS 39

International Accounting Standard 39 *Financial Instruments: Recognition and Measurement* (IAS 39) is set out in paragraphs 1–110 and Appendices A and B. All the paragraphs have equal authority but retain the IASC format of the Standard when it was adopted by the IASB. IAS 39 should be read in the context of its objective and the Basis for Conclusions, the *Preface to International Financial Reporting Standards* and the *Framework for the Preparation and Presentation of Financial Statements*. IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

IAS 39

## Introduction

The International Accounting Standards Board has decided to replace IAS 39 *Financial Instruments: Recognition and Measurement* over a period of time. The first instalment, dealing with classification and measurement of financial assets, was issued as IFRS 9 *Financial Instruments* in November 2009. As a consequence, part of IAS 39 is being superseded and will become obsolete for annual periods beginning on or after 1 January 2013. Proposals to replace the requirements on impairment and derecognition have been published and further proposals are expected in 2009 and 2010. The remaining requirements of IAS 39 continue in effect until superseded by future instalments of IFRS 9. The Board aims to have replaced IAS 39 in its entirety by the end of 2010.

IAS 39

## **International Accounting Standard 39** ***Financial Instruments: Recognition and Measurement***

### **Objective**

---

- 1 The objective of this Standard is to establish principles for recognising and measuring financial liabilities and some contracts to buy or sell non-financial items. Requirements for presenting information about financial instruments are in IAS 32 *Financial Instruments: Presentation*. Requirements for disclosing information about financial instruments are in IFRS 7 *Financial Instruments: Disclosures*. Requirements for classifying and measuring financial assets are in IFRS 9 *Financial Instruments*.

### **Scope**

---

- 2 This Standard shall be applied by all entities to all types of financial instruments except:
- (a) those interests in subsidiaries, associates and joint ventures that are accounted for under IAS 27 *Consolidated and Separate Financial Statements*, IAS 28 *Investments in Associates* or IAS 31 *Interests in Joint Ventures*. However, entities shall apply this Standard to an interest in a subsidiary, associate or joint venture that according to IAS 27, IAS 28 or IAS 31 is accounted for under this Standard. Entities shall also apply this Standard to derivatives on an interest in a subsidiary, associate or joint venture unless the derivative meets the definition of an equity instrument of the entity in IAS 32.
  - (b) rights and obligations under leases to which IAS 17 *Leases* applies. However:
    - (i) lease receivables recognised by a lessor are subject to the derecognition and impairment provisions of this Standard (see paragraphs 15–37, 58, 59, 63–65 and Appendix A paragraphs AG36–AG52 and AG84–AG93);
    - (ii) finance lease payables recognised by a lessee are subject to the derecognition provisions of this Standard (see paragraphs 39–42 and Appendix A paragraphs AG57–AG63); and
    - (iii) derivatives that are embedded in leases are subject to the embedded derivatives provisions of this Standard (see paragraphs 10–13 and Appendix A paragraphs AG27–AG33).
  - (c) employers' rights and obligations under employee benefit plans, to which IAS 19 *Employee Benefits* applies.
  - (d) financial instruments issued by the entity that meet the definition of an equity instrument in IAS 32 (including options and warrants) or that are required to be classified as an equity instrument in accordance with paragraphs 16A and 16B or paragraphs 16C and 16D of IAS 32. However, the holder of such equity instruments shall apply this Standard to those instruments, unless they meet the exception in (a) above.

IAS 39

- (e) rights and obligations arising under (i) an insurance contract as defined in IFRS 4 *Insurance Contracts*, other than an issuer's rights and obligations arising under an insurance contract that meets the definition of a financial guarantee contract in paragraph 9, or (ii) a contract that is within the scope of IFRS 4 because it contains a discretionary participation feature. However, this Standard applies to a derivative that is embedded in a contract within the scope of IFRS 4 if the derivative is not itself a contract within the scope of IFRS 4 (see paragraphs 10-13 and Appendix A paragraphs AG27-AG33 of this Standard). Moreover, if an issuer of financial guarantee contracts has previously asserted explicitly that it regards such contracts as insurance contracts and has used accounting applicable to insurance contracts, the issuer may elect to apply either this Standard or IFRS 4 to such financial guarantee contracts (see paragraphs AG4 and AG4A). The issuer may make that election contract by contract, but the election for each contract is irrevocable.
- (f) [deleted]
- (g) any forward contract between an acquirer and a selling shareholder to buy or sell an acquiree that will result in a business combination at a future acquisition date. The term of the forward contract should not exceed a reasonable period normally necessary to obtain any required approvals and to complete the transaction.
- (h) loan commitments other than those loan commitments described in paragraph 4. An issuer of loan commitments shall apply IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* to loan commitments that are not within the scope of this Standard. However, all loan commitments are subject to the derecognition provisions of this Standard (see paragraphs 15-42 and Appendix A paragraphs AG36-AG63).
- (i) financial instruments, contracts and obligations under share-based payment transactions to which IFRS 2 *Share-based Payment* applies, except for contracts within the scope of paragraphs 5-7 of this Standard, to which this Standard applies.
- (j) rights to payments to reimburse the entity for expenditure it is required to make to settle a liability that it recognises as a provision in accordance with IAS 37, or for which, in an earlier period, it recognised a provision in accordance with IAS 37.

3 [Deleted]

4 The following loan commitments are within the scope of this Standard:

- (a) loan commitments that the entity designates as financial liabilities at fair value through profit or loss. An entity that has a past practice of selling the assets resulting from its loan commitments shortly after origination shall apply this Standard to all its loan commitments in the same class.
- (b) loan commitments that can be settled net in cash or by delivering or issuing another financial instrument. These loan commitments are derivatives. A loan commitment is not regarded as settled net merely because the loan is paid out in instalments (for example, a mortgage



IAS 39

construction loan that is paid out in instalments in line with the progress of construction).

- (c) commitments to provide a loan at a below-market interest rate. Paragraph 47(d) specifies the subsequent measurement of liabilities arising from these loan commitments.

5 This Standard shall be applied to those contracts to buy or sell a non-financial item that can be settled net in cash or another financial instrument, or by exchanging financial instruments, as if the contracts were financial instruments, with the exception of contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item in accordance with the entity's expected purchase, sale or usage requirements.

6 There are various ways in which a contract to buy or sell a non-financial item can be settled net in cash or another financial instrument or by exchanging financial instruments. These include:

- (a) when the terms of the contract permit either party to settle it net in cash or another financial instrument or by exchanging financial instruments;
- (b) when the ability to settle net in cash or another financial instrument, or by exchanging financial instruments, is not explicit in the terms of the contract, but the entity has a practice of settling similar contracts net in cash or another financial instrument or by exchanging financial instruments (whether with the counterparty, by entering into offsetting contracts or by selling the contract before its exercise or lapse);
- (c) when, for similar contracts, the entity has a practice of taking delivery of the underlying and selling it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or dealer's margin; and
- (d) when the non-financial item that is the subject of the contract is readily convertible to cash.

A contract to which (b) or (c) applies is not entered into for the purpose of the receipt or delivery of the non-financial item in accordance with the entity's expected purchase, sale or usage requirements and, accordingly, is within the scope of this Standard. Other contracts to which paragraph 5 applies are evaluated to determine whether they were entered into and continue to be held for the purpose of the receipt or delivery of the non-financial item in accordance with the entity's expected purchase, sale or usage requirements and, accordingly, whether they are within the scope of this Standard.

7 A written option to buy or sell a non-financial item that can be settled net in cash or another financial instrument, or by exchanging financial instruments, in accordance with paragraph 6(a) or (d) is within the scope of this Standard. Such a contract cannot be entered into for the purpose of the receipt or delivery of the non-financial item in accordance with the entity's expected purchase, sale or usage requirements.

## Definitions

---

8 The terms defined in IAS 32 are used in this Standard with the meanings specified in paragraph 11 of IAS 32. IAS 32 defines the following terms:

- financial instrument
- financial asset
- financial liability
- equity instrument

and provides guidance on applying those definitions.

9 **The following terms are used in this Standard with the meanings specified:**

### Definition of a derivative

A *derivative* is a financial instrument or other contract within the scope of this Standard (see paragraphs 2–7) with all three of the following characteristics:

- (a) its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the ‘underlying’);
- (b) it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- (c) it is settled at a future date.

### Definitions of categories of financial instruments

A financial asset or financial liability is *held for trading* if:

- (a) it is acquired or incurred principally for the purpose of selling or repurchasing it in the near term;
- (b) on initial recognition it is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking; or
- (c) it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

A *financial liability at fair value through profit or loss* is a financial liability that meets either of the following conditions.

- (a) It meets the definition of held for trading.
- (b) Upon initial recognition it is designated by the entity as at fair value through profit or loss. An entity may use this designation only when permitted by paragraph 11A, or when doing so results in more relevant information, because either

IAS 39

- (i) it eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as 'an accounting mismatch') that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases; or
- (ii) a group of financial liabilities or financial assets and financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the group is provided internally on that basis to the entity's key management personnel (as defined in IAS 24 *Related Party Disclosures* (as revised in 2009)), for example the entity's board of directors and chief executive officer.

In IFRS 7, paragraphs 10 and 11 require the entity to provide disclosures about financial liabilities it has designated as at fair value through profit or loss, including how it has satisfied these conditions (see paragraphs B4 and B5 of IFRS 7). For instruments qualifying in accordance with (ii) above, that disclosure includes a narrative description of how designation as at fair value through profit or loss is consistent with the entity's documented risk management or investment strategy.

It should be noted that paragraphs 48, 48A, 49 and Appendix A paragraphs AG69–AG82, which set out requirements for determining a reliable measure of the fair value of a financial liability, apply equally to all items that are measured at fair value, whether by designation or otherwise, or whose fair value is disclosed.

#### Definition of a financial guarantee contract

A *financial guarantee contract* is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument.

#### Definitions relating to recognition and measurement

The *amortised cost of a financial asset or financial liability* is the amount at which the financial asset or financial liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount, and minus any reduction (directly or through the use of an allowance account) for impairment or uncollectibility.

The *effective interest method* is a method of calculating the amortised cost of a financial asset or a financial liability (or group of financial assets or financial liabilities) and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, an entity shall estimate cash flows considering all contractual terms of the financial instrument (for example, prepayment, call and similar options) but shall not consider future credit losses. The calculation includes all fees and

IAS 39

points paid or received between parties to the contract that are an integral part of the effective interest rate (see IAS 18 *Revenue*), transaction costs, and all other premiums or discounts. There is a presumption that the cash flows and the expected life of a group of similar financial instruments can be estimated reliably. However, in those rare cases when it is not possible to estimate reliably the cash flows or the expected life of a financial instrument (or group of financial instruments), the entity shall use the contractual cash flows over the full contractual term of the financial instrument (or group of financial instruments).

*Derecognition* is the removal of a previously recognised financial asset or financial liability from an entity's statement of financial position.

*Fair value* is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.\*

A *regular way purchase or sale* is a purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

*Transaction costs* are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or financial liability (see Appendix A paragraph AG13). An incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of the financial instrument.

#### Definitions relating to hedge accounting

A *firm commitment* is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.

A *forecast transaction* is an uncommitted but anticipated future transaction.

A *hedging instrument* is a designated derivative or (for a hedge of the risk of changes in foreign currency exchange rates only) a designated non-derivative financial asset or non-derivative financial liability whose fair value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedged item (paragraphs 72–77 and Appendix A paragraphs AG94–AG97 elaborate on the definition of a hedging instrument).

A *hedged item* is an asset, liability, firm commitment, highly probable forecast transaction or net investment in a foreign operation that (a) exposes the entity to risk of changes in fair value or future cash flows and (b) is designated as being hedged (paragraphs 78–84 and Appendix A paragraphs AG98–AG101 elaborate on the definition of hedged items).

*Hedge effectiveness* is the degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument (see Appendix A paragraphs AG105–AG113).

---

\* Paragraphs 48–49 and AG69–AG82 of Appendix A contain requirements for determining the fair value of a financial asset or financial liability.

IAS 39

## **Embedded derivatives**

---

- 10 An embedded derivative is a component of a hybrid (combined) contract that also includes a non-derivative host contract—with the effect that some of the cash flows of the combined contract vary in a way similar to a stand-alone derivative. An embedded derivative causes some or all of the cash flows that otherwise would be required by the contract to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract. A derivative that is attached to a financial instrument but is contractually transferable independently of that instrument, or has a different counterparty from that instrument, is not an embedded derivative, but a separate financial instrument.
- 11 **An embedded derivative shall be separated from the host contract and accounted for as a derivative under this Standard if, and only if:**
- (a) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract (see Appendix A paragraphs AG30 and AG33);
  - (b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative;
  - (c) the hybrid (combined) contract is not measured at fair value with changes in fair value recognised in profit or loss (ie a derivative that is embedded in a financial liability at fair value through profit or loss is not separated); and
  - (d) the host is outside the scope of IFRS 9.
- If an embedded derivative is separated, the host contract shall be accounted for in accordance with the appropriate IFRSs. This Standard does not address whether an embedded derivative shall be presented separately in the statement of financial position.
- 11A Notwithstanding paragraph 11, if a contract contains one or more embedded derivatives and the host is outside the scope of IFRS 9, an entity may designate the entire hybrid (combined) contract as a financial asset or financial liability at fair value through profit or loss unless:
- (a) the embedded derivative(s) does not significantly modify the cash flows that otherwise would be required by the contract; or
  - (b) it is clear with little or no analysis when a similar hybrid (combined) instrument is first considered that separation of the embedded derivative(s) is prohibited, such as a prepayment option embedded in a loan that permits the holder to prepay the loan for approximately its amortised cost.
- 12 If an entity is required by this Standard to separate an embedded derivative from its host contract, but is unable to measure the embedded derivative separately either at acquisition or at the end of a subsequent financial reporting period, it shall designate the entire hybrid (combined) contract as at fair value through profit or loss. Similarly, if an entity is unable to measure separately the

IAS 39

**embedded derivative that would have to be separated on reclassification of a hybrid (combined) contract out of the fair value through profit or loss category, that reclassification is prohibited. In such circumstances the hybrid (combined) contract remains classified as at fair value through profit or loss in its entirety.**

- 13 If an entity is unable to determine reliably the fair value of an embedded derivative on the basis of its terms and conditions, the fair value of the embedded derivative is the difference between the fair value of the hybrid (combined) contract and the fair value of the host contract, if those can be determined under this Standard. If the entity is unable to determine the fair value of the embedded derivative using this method, paragraph 12 applies and the hybrid (combined) contract is designated as at fair value through profit or loss.

## **Recognition and derecognition**

---

### **Initial recognition**

- 14 **An entity shall recognise a financial liability in its statement of financial position when, and only when, the entity becomes a party to the contractual provisions of the instrument.**

### **Derecognition of a financial asset**

- 15 In consolidated financial statements, paragraphs 16–23 and Appendix A paragraphs AG34–AG52 are applied at a consolidated level. Hence, an entity first consolidates all subsidiaries in accordance with IAS 27 and SIC-12 *Consolidation—Special Purpose Entities* and then applies paragraphs 16–23 and Appendix A paragraphs AG34–AG52 to the resulting group.
- 16 **Before evaluating whether, and to what extent, derecognition is appropriate under paragraphs 17–23, an entity determines whether those paragraphs should be applied to a part of a financial asset (or a part of a group of similar financial assets) or a financial asset (or a group of similar financial assets) in its entirety, as follows.**
- (a) Paragraphs 17–23 are applied to a part of a financial asset (or a part of a group of similar financial assets) if, and only if, the part being considered for derecognition meets one of the following three conditions.
    - (i) The part comprises only specifically identified cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an interest rate strip whereby the counterparty obtains the right to the interest cash flows, but not the principal cash flows from a debt instrument, paragraphs 17–23 are applied to the interest cash flows.
    - (ii) The part comprises only a fully proportionate (pro rata) share of the cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an arrangement whereby the counterparty obtains the rights to a 90 per cent share of all cash flows of a debt instrument, paragraphs 17–23 are applied to 90 per cent of those cash flows. If there is more than one

IAS 39

counterparty, each counterparty is not required to have a proportionate share of the cash flows provided that the transferring entity has a fully proportionate share.

(iii) The part comprises only a fully proportionate (pro rata) share of specifically identified cash flows from a financial asset (or a group of similar financial assets). For example, when an entity enters into an arrangement whereby the counterparty obtains the rights to a 90 per cent share of interest cash flows from a financial asset, paragraphs 17–23 are applied to 90 per cent of those interest cash flows. If there is more than one counterparty, each counterparty is not required to have a proportionate share of the specifically identified cash flows provided that the transferring entity has a fully proportionate share.

(b) In all other cases, paragraphs 17–23 are applied to the financial asset in its entirety (or to the group of similar financial assets in their entirety). For example, when an entity transfers (i) the rights to the first or the last 90 per cent of cash collections from a financial asset (or a group of financial assets), or (ii) the rights to 90 per cent of the cash flows from a group of receivables, but provides a guarantee to compensate the buyer for any credit losses up to 8 per cent of the principal amount of the receivables, paragraphs 17–23 are applied to the financial asset (or a group of similar financial assets) in its entirety.

In paragraphs 17–26, the term ‘financial asset’ refers to either a part of a financial asset (or a part of a group of similar financial assets) as identified in (a) above or, otherwise, a financial asset (or a group of similar financial assets) in its entirety.

17 An entity shall derecognise a financial asset when, and only when:

- (a) the contractual rights to the cash flows from the financial asset expire; or
- (b) it transfers the financial asset as set out in paragraphs 18 and 19 and the transfer qualifies for derecognition in accordance with paragraph 20.

(See paragraph 38 for regular way sales of financial assets.)

18 An entity transfers a financial asset if, and only if, it either:

- (a) transfers the contractual rights to receive the cash flows of the financial asset; or
- (b) retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients in an arrangement that meets the conditions in paragraph 19.

19 When an entity retains the contractual rights to receive the cash flows of a financial asset (the ‘original asset’), but assumes a contractual obligation to pay those cash flows to one or more entities (the ‘eventual recipients’), the entity treats the transaction as a transfer of a financial asset if, and only if, all of the following three conditions are met.

- (a) The entity has no obligation to pay amounts to the eventual recipients unless it collects equivalent amounts from the original asset. Short-term advances by the entity with the right of full recovery of the amount lent plus accrued interest at market rates do not violate this condition.

IAS 39

- (b) The entity is prohibited by the terms of the transfer contract from selling or pledging the original asset other than as security to the eventual recipients for the obligation to pay them cash flows.
- (c) The entity has an obligation to remit any cash flows it collects on behalf of the eventual recipients without material delay. In addition, the entity is not entitled to reinvest such cash flows, except for investments in cash or cash equivalents (as defined in IAS 7 *Statement of Cash Flows*) during the short settlement period from the collection date to the date of required remittance to the eventual recipients, and interest earned on such investments is passed to the eventual recipients.

20 When an entity transfers a financial asset (see paragraph 18), it shall evaluate the extent to which it retains the risks and rewards of ownership of the financial asset. In this case:

- (a) if the entity transfers substantially all the risks and rewards of ownership of the financial asset, the entity shall derecognise the financial asset and recognise separately as assets or liabilities any rights and obligations created or retained in the transfer.
- (b) if the entity retains substantially all the risks and rewards of ownership of the financial asset, the entity shall continue to recognise the financial asset.
- (c) if the entity neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, the entity shall determine whether it has retained control of the financial asset. In this case:
  - (i) if the entity has not retained control, it shall derecognise the financial asset and recognise separately as assets or liabilities any rights and obligations created or retained in the transfer.
  - (ii) if the entity has retained control, it shall continue to recognise the financial asset to the extent of its continuing involvement in the financial asset (see paragraph 30).

21 The transfer of risks and rewards (see paragraph 20) is evaluated by comparing the entity's exposure, before and after the transfer, with the variability in the amounts and timing of the net cash flows of the transferred asset. An entity has retained substantially all the risks and rewards of ownership of a financial asset if its exposure to the variability in the present value of the future net cash flows from the financial asset does not change significantly as a result of the transfer (eg because the entity has sold a financial asset subject to an agreement to buy it back at a fixed price or the sale price plus a lender's return). An entity has transferred substantially all the risks and rewards of ownership of a financial asset if its exposure to such variability is no longer significant in relation to the total variability in the present value of the future net cash flows associated with the financial asset (eg because the entity has sold a financial asset subject only to an option to buy it back at its fair value at the time of repurchase or has transferred a fully proportionate share of the cash flows from a larger financial asset in an arrangement, such as a loan sub-participation, that meets the conditions in paragraph 19).



IAS 39

- 22 Often it will be obvious whether the entity has transferred or retained substantially all risks and rewards of ownership and there will be no need to perform any computations. In other cases, it will be necessary to compute and compare the entity's exposure to the variability in the present value of the future net cash flows before and after the transfer. The computation and comparison is made using as the discount rate an appropriate current market interest rate. All reasonably possible variability in net cash flows is considered, with greater weight being given to those outcomes that are more likely to occur.
- 23 Whether the entity has retained control (see paragraph 20(c)) of the transferred asset depends on the transferee's ability to sell the asset. If the transferee has the practical ability to sell the asset in its entirety to an unrelated third party and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer, the entity has not retained control. In all other cases, the entity has retained control.

**Transfers that qualify for derecognition  
(see paragraph 20(a) and (c)(i))**

- 24 If an entity transfers a financial asset in a transfer that qualifies for derecognition in its entirety and retains the right to service the financial asset for a fee, it shall recognise either a servicing asset or a servicing liability for that servicing contract. If the fee to be received is not expected to compensate the entity adequately for performing the servicing, a servicing liability for the servicing obligation shall be recognised at its fair value. If the fee to be received is expected to be more than adequate compensation for the servicing, a servicing asset shall be recognised for the servicing right at an amount determined on the basis of an allocation of the carrying amount of the larger financial asset in accordance with paragraph 27.
- 25 If, as a result of a transfer, a financial asset is derecognised in its entirety but the transfer results in the entity obtaining a new financial asset or assuming a new financial liability, or a servicing liability, the entity shall recognise the new financial asset, financial liability or servicing liability at fair value.
- 26 On derecognition of a financial asset in its entirety, the difference between:
- (a) the carrying amount (measured at the date of derecognition) and
  - (b) the consideration received (including any new asset obtained less any new liability assumed)
- shall be recognised in profit or loss.
- 27 If the transferred asset is part of a larger financial asset (eg when an entity transfers interest cash flows that are part of a debt instrument, see paragraph 16(a)) and the part transferred qualifies for derecognition in its entirety, the previous carrying amount of the larger financial asset shall be allocated between the part that continues to be recognised and the part that is derecognised, based on the relative fair values of those parts on the date of the transfer. For this purpose, a retained servicing asset shall be treated as a part that continues to be recognised. The difference between:
- (a) the carrying amount (measured at the date of derecognition) allocated to the part derecognised and

IAS 39

- (b) the consideration received for the part derecognised (including any new asset obtained less any new liability assumed)

shall be recognised in profit or loss.

- 28 When an entity allocates the previous carrying amount of a larger financial asset between the part that continues to be recognised and the part that is derecognised, the fair value of the part that continues to be recognised needs to be determined. When the entity has a history of selling parts similar to the part that continues to be recognised or other market transactions exist for such parts, recent prices of actual transactions provide the best estimate of its fair value. When there are no price quotes or recent market transactions to support the fair value of the part that continues to be recognised, the best estimate of the fair value is the difference between the fair value of the larger financial asset as a whole and the consideration received from the transferee for the part that is derecognised.

**Transfers that do not qualify for derecognition  
(see paragraph 20(b))**

- 29 If a transfer does not result in derecognition because the entity has retained substantially all the risks and rewards of ownership of the transferred asset, the entity shall continue to recognise the transferred asset in its entirety and shall recognise a financial liability for the consideration received. In subsequent periods, the entity shall recognise any income on the transferred asset and any expense incurred on the financial liability.

**Continuing involvement in transferred assets  
(see paragraph 20(c)(ii))**

- 30 If an entity neither transfers nor retains substantially all the risks and rewards of ownership of a transferred asset, and retains control of the transferred asset, the entity continues to recognise the transferred asset to the extent of its continuing involvement. The extent of the entity's continuing involvement in the transferred asset is the extent to which it is exposed to changes in the value of the transferred asset. For example:
- (a) when the entity's continuing involvement takes the form of guaranteeing the transferred asset, the extent of the entity's continuing involvement is the lower of (i) the amount of the asset and (ii) the maximum amount of the consideration received that the entity could be required to repay ('the guarantee amount').
- (b) when the entity's continuing involvement takes the form of a written or purchased option (or both) on the transferred asset, the extent of the entity's continuing involvement is the amount of the transferred asset that the entity may repurchase. However, in case of a written put option on an asset that is measured at fair value, the extent of the entity's continuing involvement is limited to the lower of the fair value of the transferred asset and the option exercise price (see paragraph AG48).

IAS 39

- (c) when the entity's continuing involvement takes the form of a cash-settled option or similar provision on the transferred asset, the extent of the entity's continuing involvement is measured in the same way as that which results from non-cash settled options as set out in (b) above.
- 31 When an entity continues to recognise an asset to the extent of its continuing involvement, the entity also recognises an associated liability. Despite the other measurement requirements in this Standard and IFRS 9, the transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the entity has retained. The associated liability is measured in such a way that the net carrying amount of the transferred asset and the associated liability is:
  - (a) the amortised cost of the rights and obligations retained by the entity, if the transferred asset is measured at amortised cost; or
  - (b) equal to the fair value of the rights and obligations retained by the entity when measured on a stand-alone basis, if the transferred asset is measured at fair value.
- 32 The entity shall continue to recognise any income arising on the transferred asset to the extent of its continuing involvement and shall recognise any expense incurred on the associated liability.
- 33 For the purpose of subsequent measurement, recognised changes in the fair value of the transferred asset and the associated liability are accounted for consistently with each other in accordance with paragraph 55 and IFRS 9 paragraph 5.4.1, and shall not be offset.
- 34 If an entity's continuing involvement is in only a part of a financial asset (eg when an entity retains an option to repurchase part of a transferred asset, or retains a residual interest that does not result in the retention of substantially all the risks and rewards of ownership and the entity retains control), the entity allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. For this purpose, the requirements of paragraph 28 apply. The difference between:
  - (a) the carrying amount (measured at the date of derecognition) allocated to the part that is no longer recognised; and
  - (b) the consideration received for the part no longer recognisedshall be recognised in profit or loss.
- 35 If the transferred asset is measured at amortised cost, the option in this Standard to designate a financial liability as at fair value through profit or loss is not applicable to the associated liability.

IAS 39

#### **All transfers**

- 36 If a transferred asset continues to be recognised, the asset and the associated liability shall not be offset. Similarly, the entity shall not offset any income arising from the transferred asset with any expense incurred on the associated liability (see IAS 32 paragraph 42).
- 37 If a transferor provides non-cash collateral (such as debt or equity instruments) to the transferee, the accounting for the collateral by the transferor and the transferee depends on whether the transferee has the right to sell or repledge the collateral and on whether the transferor has defaulted. The transferor and transferee shall account for the collateral as follows:
- (a) If the transferee has the right by contract or custom to sell or repledge the collateral, then the transferor shall reclassify that asset in its statement of financial position (eg as a loaned asset, pledged equity instruments or repurchase receivable) separately from other assets.
  - (b) If the transferee sells collateral pledged to it, it shall recognise the proceeds from the sale and a liability measured at fair value for its obligation to return the collateral.
  - (c) If the transferor defaults under the terms of the contract and is no longer entitled to redeem the collateral, it shall derecognise the collateral, and the transferee shall recognise the collateral as its asset initially measured at fair value or, if it has already sold the collateral, derecognise its obligation to return the collateral.
  - (d) Except as provided in (c), the transferor shall continue to carry the collateral as its asset, and the transferee shall not recognise the collateral as an asset.

#### **Regular way purchase or sale of a financial asset**

- 38 A regular way purchase or sale of financial assets shall be recognised and derecognised, as applicable, using trade date accounting or settlement date accounting (see Appendix A paragraphs AG53–AG56).

#### **Derecognition of a financial liability**

- 39 An entity shall remove a financial liability (or a part of a financial liability) from its statement of financial position when, and only when, it is extinguished—ie when the obligation specified in the contract is discharged or cancelled or expires.
- 40 An exchange between an existing borrower and lender of debt instruments with substantially different terms shall be accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, a substantial modification of the terms of an existing financial liability or a part of it (whether or not attributable to the financial difficulty of the debtor) shall be accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

IAS 39

- 41 **The difference between the carrying amount of a financial liability (or part of a financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, shall be recognised in profit or loss.**
- 42 If an entity repurchases a part of a financial liability, the entity shall allocate the previous carrying amount of the financial liability between the part that continues to be recognised and the part that is derecognised based on the relative fair values of those parts on the date of the repurchase. The difference between (a) the carrying amount allocated to the part derecognised and (b) the consideration paid, including any non-cash assets transferred or liabilities assumed, for the part derecognised shall be recognised in profit or loss.

## **Measurement**

---

### **Initial measurement of financial liabilities**

- 43 **When a financial liability is recognised initially, an entity shall measure it at its fair value minus, in the case of a financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the issue of the financial liability.**
- 44 When an entity uses settlement date accounting for an asset that is subsequently measured at amortised cost, the asset is recognised initially at its fair value on the trade date (see Appendix A paragraphs AG53–AG56).
- 45–46 [Deleted]

### **Subsequent measurement of financial liabilities**

- 47 **After initial recognition, an entity shall measure all financial liabilities at amortised cost using the effective interest method, except for:**
- (a) **financial liabilities at fair value through profit or loss. Such liabilities, including derivatives that are liabilities, shall be measured at fair value except for a derivative liability that is linked to and must be settled by delivery of an unquoted equity instrument whose fair value cannot be reliably measured, which shall be measured at cost (see Appendix A paragraphs AG80 and AG81).**
  - (b) **financial liabilities that arise when a transfer of a financial asset does not qualify for derecognition or when the continuing involvement approach applies. Paragraphs 29 and 31 apply to the measurement of such financial liabilities.**
  - (c) **financial guarantee contracts as defined in paragraph 9. After initial recognition, an issuer of such a contract shall (unless paragraph 47(a) or (b) applies) measure it at the higher of:**
    - (i) **the amount determined in accordance with IAS 37; and**

IAS 39

- (ii) the amount initially recognised (see paragraph 43) less, when appropriate, cumulative amortisation recognised in accordance with IAS 18.
- (d) commitments to provide a loan at a below-market interest rate. After initial recognition, an issuer of such a commitment shall (unless paragraph 47(a) applies) measure it at the higher of:
  - (i) the amount determined in accordance with IAS 37; and
  - (ii) the amount initially recognised (see paragraph 43) less, when appropriate, cumulative amortisation recognised in accordance with IAS 18.

Financial liabilities that are designated as hedged items are subject to the hedge accounting requirements in paragraphs 89–102.

### **Fair value measurement considerations**

**48 In determining the fair value of a financial asset or a financial liability for the purpose of applying this Standard, IAS 32, IFRS 7 or IFRS 9, an entity shall apply paragraphs AG69–AG82 of Appendix A.**

**48A** The best evidence of fair value is quoted prices in an active market. If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique. The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data.

**49** The fair value of a financial liability with a demand feature (eg a demand deposit) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid.

### **Reclassifications**

**50 An entity shall not reclassify a financial liability except in accordance with paragraphs 53 and 54.**

**50A** The following changes in circumstances are not reclassifications for the purposes of paragraph 50:

IAS 39

- (a) a derivative that was previously a designated and effective hedging instrument in a cash flow hedge or net investment hedge no longer qualifies as such.
- (b) a derivative becomes a designated and effective hedging instrument in a cash flow hedge or net investment hedge.
- (c) [deleted].

50B-52 [Deleted]

- 53 **If a reliable measure becomes available for a financial liability for which such a measure was previously not available, and the liability is required to be measured at fair value if a reliable measure is available (see paragraph 47(a)), the liability shall be remeasured at fair value, and the difference between its carrying amount and fair value shall be accounted for in accordance with paragraph 55.**
- 54 **If, in rare circumstances, a reliable measure of fair value is no longer available (see paragraph 47(a)), an entity shall measure the financial liability at cost rather than at fair value. The fair value of the financial liability on the date of reclassification becomes its new cost.**

### **Gains and losses**

- 55 **A gain or loss arising from a change in the fair value of a financial liability measured at fair value through profit or loss that is not part of a hedging relationship (see paragraphs 89-102), shall be recognised in profit or loss.**
- 56 **For financial liabilities measured at amortised cost (see paragraph 47), a gain or loss is recognised in profit or loss when the financial liability is derecognised, and through the amortisation process. However, for financial liabilities that are hedged items (see paragraphs 78-84 and Appendix A paragraphs AG98-AG101) the accounting for the gain or loss shall follow paragraphs 89-102.**
- 57 **If an entity recognises financial assets using settlement date accounting (see paragraph 38 and Appendix A paragraphs AG53 and AG56), any change in the fair value of the asset to be received during the period between the trade date and the settlement date is not recognised for assets measured at amortised cost (other than impairment losses). For assets measured at fair value, however, the change in fair value shall be recognised in profit or loss or in other comprehensive income, as appropriate under paragraph 5.4.1 of IFRS 9.**

### **Impairment and uncollectibility of financial assets measured at amortised cost**

- 58 **An entity shall assess at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets measured at amortised cost is impaired. If any such evidence exists, the entity shall apply paragraph 63 to determine the amount of any impairment loss.**
- 59 **A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a 'loss event') and that loss event (or events) has an impact on the estimated**

IAS 39

future cash flows of the financial asset or group of financial assets that can be reliably estimated. It may not be possible to identify a single, discrete event that caused the impairment. Rather the combined effect of several events may have caused the impairment. Losses expected as a result of future events, no matter how likely, are not recognised. Objective evidence that a financial asset or group of assets is impaired includes observable data that comes to the attention of the holder of the asset about the following loss events:

- (a) significant financial difficulty of the issuer or obligor;
- (b) a breach of contract, such as a default or delinquency in interest or principal payments;
- (c) the lender, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- (d) it becoming probable that the borrower will enter bankruptcy or other financial reorganisation;
- (e) the disappearance of an active market for that financial asset because of financial difficulties; or
- (f) observable data indicating that there is a measurable decrease in the estimated future cash flows from a group of financial assets since the initial recognition of those assets, although the decrease cannot yet be identified with the individual financial assets in the group, including:
  - (i) adverse changes in the payment status of borrowers in the group (eg an increased number of delayed payments or an increased number of credit card borrowers who have reached their credit limit and are paying the minimum monthly amount); or
  - (ii) national or local economic conditions that correlate with defaults on the assets in the group (eg an increase in the unemployment rate in the geographical area of the borrowers, a decrease in property prices for mortgages in the relevant area, a decrease in oil prices for loan assets to oil producers, or adverse changes in industry conditions that affect the borrowers in the group).

60 The disappearance of an active market because an entity's financial instruments are no longer publicly traded is not evidence of impairment. A downgrade of an entity's credit rating is not, of itself, evidence of impairment, although it may be evidence of impairment when considered with other available information. A decline in the fair value of a financial asset below its cost or amortised cost is not necessarily evidence of impairment (for example, a decline in the fair value of an investment in a debt instrument that results from an increase in the risk-free interest rate).

61 [Deleted]

62 In some cases the observable data required to estimate the amount of an impairment loss on a financial asset may be limited or no longer fully relevant to current circumstances. For example, this may be the case when a borrower is in financial difficulties and there are few available historical data relating to similar



IAS 39

borrowers. In such cases, an entity uses its experienced judgement to estimate the amount of any impairment loss. Similarly an entity uses its experienced judgement to adjust observable data for a group of financial assets to reflect current circumstances (see paragraph AG89). The use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability.

63 **If there is objective evidence that an impairment loss on financial assets measured at amortised cost has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate (ie the effective interest rate computed at initial recognition). The carrying amount of the asset shall be reduced either directly or through use of an allowance account. The amount of the loss shall be recognised in profit or loss.**

64 An entity first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, and individually or collectively for financial assets that are not individually significant (see paragraph 59). If an entity determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment.

65 **If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the previously recognised impairment loss shall be reversed either directly or by adjusting an allowance account. The reversal shall not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed. The amount of the reversal shall be recognised in profit or loss.**

66–70 [Deleted]

## **Hedging**

---

71 **If there is a designated hedging relationship between a hedging instrument and a hedged item as described in paragraphs 85–88 and Appendix A paragraphs AG102–AG104, accounting for the gain or loss on the hedging instrument and the hedged item shall follow paragraphs 89–102.**

## **Hedging instruments**

### **Qualifying instruments**

- 72 This Standard does not restrict the circumstances in which a derivative may be designated as a hedging instrument provided the conditions in paragraph 88 are met, except for some written options (see Appendix A paragraph AG94). However, a non-derivative financial asset or non-derivative financial liability may be designated as a hedging instrument only for a hedge of a foreign currency risk.
- 73 For hedge accounting purposes, only instruments that involve a party external to the reporting entity (ie external to the group or individual entity that is being reported on) can be designated as hedging instruments. Although individual entities within a consolidated group or divisions within an entity may enter into hedging transactions with other entities within the group or divisions within the entity, any such intragroup transactions are eliminated on consolidation. Therefore, such hedging transactions do not qualify for hedge accounting in the consolidated financial statements of the group. However, they may qualify for hedge accounting in the individual or separate financial statements of individual entities within the group provided that they are external to the individual entity that is being reported on.

### **Designation of hedging instruments**

- 74 There is normally a single fair value measure for a hedging instrument in its entirety, and the factors that cause changes in fair value are co-dependent. Thus, a hedging relationship is designated by an entity for a hedging instrument in its entirety. The only exceptions permitted are:
- (a) separating the intrinsic value and time value of an option contract and designating as the hedging instrument only the change in intrinsic value of an option and excluding change in its time value; and
  - (b) separating the interest element and the spot price of a forward contract.
- These exceptions are permitted because the intrinsic value of the option and the premium on the forward can generally be measured separately. A dynamic hedging strategy that assesses both the intrinsic value and time value of an option contract can qualify for hedge accounting.
- 75 A proportion of the entire hedging instrument, such as 50 per cent of the notional amount, may be designated as the hedging instrument in a hedging relationship. However, a hedging relationship may not be designated for only a portion of the time period during which a hedging instrument remains outstanding.
- 76 A single hedging instrument may be designated as a hedge of more than one type of risk provided that (a) the risks hedged can be identified clearly; (b) the effectiveness of the hedge can be demonstrated; and (c) it is possible to ensure that there is specific designation of the hedging instrument and different risk positions.

IAS 39

- 77 Two or more derivatives, or proportions of them (or, in the case of a hedge of currency risk, two or more non-derivatives or proportions of them, or a combination of derivatives and non-derivatives or proportions of them), may be viewed in combination and jointly designated as the hedging instrument, including when the risk(s) arising from some derivatives offset(s) those arising from others. However, an interest rate collar or other derivative instrument that combines a written option and a purchased option does not qualify as a hedging instrument if it is, in effect, a net written option (for which a net premium is received). Similarly, two or more instruments (or proportions of them) may be designated as the hedging instrument only if none of them is a written option or a net written option.

### **Hedged items**

#### **Qualifying items**

- 78 A hedged item can be a recognised asset or liability, an unrecognised firm commitment, a highly probable forecast transaction or a net investment in a foreign operation. The hedged item can be (a) a single asset, liability, firm commitment, highly probable forecast transaction or net investment in a foreign operation, (b) a group of assets, liabilities, firm commitments, highly probable forecast transactions or net investments in foreign operations with similar risk characteristics or (c) in a portfolio hedge of interest rate risk only, a portion of the portfolio of financial assets or financial liabilities that share the risk being hedged.
- 79 [Deleted]
- 80 For hedge accounting purposes, only assets, liabilities, firm commitments or highly probable forecast transactions that involve a party external to the entity can be designated as hedged items. It follows that hedge accounting can be applied to transactions between entities in the same group only in the individual or separate financial statements of those entities and not in the consolidated financial statements of the group. As an exception, the foreign currency risk of an intragroup monetary item (eg a payable/receivable between two subsidiaries) may qualify as a hedged item in the consolidated financial statements if it results in an exposure to foreign exchange rate gains or losses that are not fully eliminated on consolidation in accordance with IAS 21 *The Effects of Changes in Foreign Exchange Rates*. In accordance with IAS 21, foreign exchange rate gains and losses on intragroup monetary items are not fully eliminated on consolidation when the intragroup monetary item is transacted between two group entities that have different functional currencies. In addition, the foreign currency risk of a highly probable forecast intragroup transaction may qualify as a hedged item in consolidated financial statements provided that the transaction is denominated in a currency other than the functional currency of the entity entering into that transaction and the foreign currency risk will affect consolidated profit or loss.

IAS 39

#### **Designation of financial items as hedged items**

- 81 If the hedged item is a financial asset or financial liability, it may be a hedged item with respect to the risks associated with only a portion of its cash flows or fair value (such as one or more selected contractual cash flows or portions of them or a percentage of the fair value) provided that effectiveness can be measured. For example, an identifiable and separately measurable portion of the interest rate exposure of an interest-bearing asset or interest-bearing liability may be designated as the hedged risk (such as a risk-free interest rate or benchmark interest rate component of the total interest rate exposure of a hedged financial instrument).
- 81A In a fair value hedge of the interest rate exposure of a portfolio of financial assets or financial liabilities (and only in such a hedge), the portion hedged may be designated in terms of an amount of a currency (eg an amount of dollars, euro, pounds or rand) rather than as individual assets (or liabilities). Although the portfolio may, for risk management purposes, include assets and liabilities, the amount designated is an amount of assets or an amount of liabilities. Designation of a net amount including assets and liabilities is not permitted. The entity may hedge a portion of the interest rate risk associated with this designated amount. For example, in the case of a hedge of a portfolio containing prepayable assets, the entity may hedge the change in fair value that is attributable to a change in the hedged interest rate on the basis of expected, rather than contractual, repricing dates. When the portion hedged is based on expected repricing dates, the effect that changes in the hedged interest rate have on those expected repricing dates shall be included when determining the change in the fair value of the hedged item. Consequently, if a portfolio that contains prepayable items is hedged with a non-prepayable derivative, ineffectiveness arises if the dates on which items in the hedged portfolio are expected to prepay are revised, or actual prepayment dates differ from those expected.

#### **Designation of non-financial items as hedged items**

- 82 **If the hedged item is a non-financial asset or non-financial liability, it shall be designated as a hedged item (a) for foreign currency risks, or (b) in its entirety for all risks, because of the difficulty of isolating and measuring the appropriate portion of the cash flows or fair value changes attributable to specific risks other than foreign currency risks.**

#### **Designation of groups of items as hedged items**

- 83 Similar assets or similar liabilities shall be aggregated and hedged as a group only if the individual assets or individual liabilities in the group share the risk exposure that is designated as being hedged. Furthermore, the change in fair value attributable to the hedged risk for each individual item in the group shall be expected to be approximately proportional to the overall change in fair value attributable to the hedged risk of the group of items.

IAS 39

- 84 Because an entity assesses hedge effectiveness by comparing the change in the fair value or cash flow of a hedging instrument (or group of similar hedging instruments) and a hedged item (or group of similar hedged items), comparing a hedging instrument with an overall net position (eg the net of all fixed rate assets and fixed rate liabilities with similar maturities), rather than with a specific hedged item, does not qualify for hedge accounting.

### **Hedge accounting**

- 85 Hedge accounting recognises the offsetting effects on profit or loss of changes in the fair values of the hedging instrument and the hedged item.

- 86 **Hedging relationships are of three types:**

- (a) *fair value hedge*: a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss.
- (b) *cash flow hedge*: a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss.
- (c) *hedge of a net investment in a foreign operation* as defined in IAS 21.

- 87 A hedge of the foreign currency risk of a firm commitment may be accounted for as a fair value hedge or as a cash flow hedge.

- 88 A hedging relationship qualifies for hedge accounting under paragraphs 89–102 if, and only if, all of the following conditions are met.

- (a) At the inception of the hedge there is formal designation and documentation of the hedging relationship and the entity's risk management objective and strategy for undertaking the hedge. That documentation shall include identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the entity will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk.
- (b) The hedge is expected to be highly effective (see Appendix A paragraphs AG105–AG113) in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, consistently with the originally documented risk management strategy for that particular hedging relationship.
- (c) For cash flow hedges, a forecast transaction that is the subject of the hedge must be highly probable and must present an exposure to variations in cash flows that could ultimately affect profit or loss.
- (d) The effectiveness of the hedge can be reliably measured, ie the fair value or cash flows of the hedged item that are attributable to the hedged risk and the fair value of the hedging instrument can be reliably measured

IAS 39

(see paragraph 47(a) and Appendix A paragraphs AG80 and AG81 for guidance on determining fair value).

- (e) The hedge is assessed on an ongoing basis and determined actually to have been highly effective throughout the financial reporting periods for which the hedge was designated.

#### **Fair value hedges**

89 If a fair value hedge meets the conditions in paragraph 88 during the period, it shall be accounted for as follows:

- (a) the gain or loss from remeasuring the hedging instrument at fair value (for a derivative hedging instrument) or the foreign currency component of its carrying amount measured in accordance with IAS 21 (for a non-derivative hedging instrument) shall be recognised in profit or loss; and
- (b) the gain or loss on the hedged item attributable to the hedged risk shall adjust the carrying amount of the hedged item and be recognised in profit or loss. This applies if the hedged item is otherwise measured at cost.

89A For a fair value hedge of the interest rate exposure of a portion of a portfolio of financial assets or financial liabilities (and only in such a hedge), the requirement in paragraph 89(b) may be met by presenting the gain or loss attributable to the hedged item either:

- (a) in a single separate line item within assets, for those repricing time periods for which the hedged item is an asset; or
- (b) in a single separate line item within liabilities, for those repricing time periods for which the hedged item is a liability.

The separate line items referred to in (a) and (b) above shall be presented next to financial assets or financial liabilities. Amounts included in these line items shall be removed from the statement of financial position when the assets or liabilities to which they relate are derecognised.

90 If only particular risks attributable to a hedged item are hedged, recognised changes in the fair value of the hedged item unrelated to the hedged risk are recognised as set out in paragraph 55 of this Standard and paragraph 5.4.1 of IFRS 9.

91 An entity shall discontinue prospectively the hedge accounting specified in paragraph 89 if:

- (a) the hedging instrument expires or is sold, terminated or exercised (for this purpose, the replacement or rollover of a hedging instrument into another hedging instrument is not an expiration or termination if such replacement or rollover is part of the entity's documented hedging strategy);
- (b) the hedge no longer meets the criteria for hedge accounting in paragraph 88; or
- (c) the entity revokes the designation.

IAS 39

- 92 Any adjustment arising from paragraph 89(b) to the carrying amount of a hedged financial instrument for which the effective interest method is used (or, in the case of a portfolio hedge of interest rate risk, to the separate line item in the statement of financial position described in paragraph 89A) shall be amortised to profit or loss. Amortisation may begin as soon as an adjustment exists and shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged. The adjustment is based on a recalculated effective interest rate at the date amortisation begins. However, if, in the case of a fair value hedge of the interest rate exposure of a portfolio of financial assets or financial liabilities (and only in such a hedge), amortising using a recalculated effective interest rate is not practicable, the adjustment shall be amortised using a straight-line method. The adjustment shall be amortised fully by maturity of the financial instrument or, in the case of a portfolio hedge of interest rate risk, by expiry of the relevant repricing time period.
- 93 When an unrecognised firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognised as an asset or liability with a corresponding gain or loss recognised in profit or loss (see paragraph 89(b)). The changes in the fair value of the hedging instrument are also recognised in profit or loss.
- 94 When an entity enters into a firm commitment to acquire an asset or assume a liability that is a hedged item in a fair value hedge, the initial carrying amount of the asset or liability that results from the entity meeting the firm commitment is adjusted to include the cumulative change in the fair value of the firm commitment attributable to the hedged risk that was recognised in the statement of financial position.

#### **Cash flow hedges**

- 95 If a cash flow hedge meets the conditions in paragraph 88 during the period, it shall be accounted for as follows:
- (a) the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge (see paragraph 88) shall be recognised in other comprehensive income; and
  - (b) the ineffective portion of the gain or loss on the hedging instrument shall be recognised in profit or loss.
- 96 More specifically, a cash flow hedge is accounted for as follows:
- (a) the separate component of equity associated with the hedged item is adjusted to the lesser of the following (in absolute amounts):
    - (i) the cumulative gain or loss on the hedging instrument from inception of the hedge; and
    - (ii) the cumulative change in fair value (present value) of the expected future cash flows on the hedged item from inception of the hedge;
  - (b) any remaining gain or loss on the hedging instrument or designated component of it (that is not an effective hedge) is recognised in profit or loss; and

IAS 39

- (c) if an entity's documented risk management strategy for a particular hedging relationship excludes from the assessment of hedge effectiveness a specific component of the gain or loss or related cash flows on the hedging instrument (see paragraphs 74, 75 and 88(a)), that excluded component of gain or loss is recognised in accordance with paragraph 55 of this Standard and paragraph 5.4.1 of IFRS 9.

97 If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gains or losses that were recognised in other comprehensive income in accordance with paragraph 95 shall be reclassified from equity to profit or loss as a reclassification adjustment (see IAS 1 (as revised in 2007)) in the same period or periods during which the hedged forecast cash flows affect profit or loss (such as in the periods that interest income or interest expense is recognised). However, if an entity expects that all or a portion of a loss recognised in other comprehensive income will not be recovered in one or more future periods, it shall reclassify into profit or loss as a reclassification adjustment the amount that is not expected to be recovered.

98 If a hedge of a forecast transaction subsequently results in the recognition of a non-financial asset or a non-financial liability, or a forecast transaction for a non-financial asset or non-financial liability becomes a firm commitment for which fair value hedge accounting is applied, then the entity shall adopt (a) or (b) below:

- (a) It reclassifies the associated gains and losses that were recognised in other comprehensive income in accordance with paragraph 95 to profit or loss as a reclassification adjustment (see IAS 1 (revised 2007)) in the same period or periods during which the asset acquired or liability assumed affects profit or loss (such as in the periods that depreciation expense or cost of sales is recognised). However, if an entity expects that all or a portion of a loss recognised in other comprehensive income will not be recovered in one or more future periods, it shall reclassify from equity to profit or loss as a reclassification adjustment the amount that is not expected to be recovered.
- (b) It removes the associated gains and losses that were recognised in other comprehensive income in accordance with paragraph 95, and includes them in the initial cost or other carrying amount of the asset or liability.

99 An entity shall adopt either (a) or (b) in paragraph 98 as its accounting policy and shall apply it consistently to all hedges to which paragraph 98 relates.

100 For cash flow hedges other than those covered by paragraphs 97 and 98, amounts that had been recognised in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment (see IAS 1 (revised 2007)) in the same period or periods during which the hedged forecast cash flows affect profit or loss (for example, when a forecast sale occurs).

101 In any of the following circumstances an entity shall discontinue prospectively the hedge accounting specified in paragraphs 95–100:

- (a) The hedging instrument expires or is sold, terminated or exercised (for this purpose, the replacement or rollover of a hedging instrument into another hedging instrument is not an expiration or termination if such



IAS 39

replacement or rollover is part of the entity's documented hedging strategy). In this case, the cumulative gain or loss on the hedging instrument that has been recognised in other comprehensive income from the period when the hedge was effective (see paragraph 95(a)) shall remain separately in equity until the forecast transaction occurs. When the transaction occurs, paragraph 97, 98 or 100 applies.

- (b) The hedge no longer meets the criteria for hedge accounting in paragraph 88. In this case, the cumulative gain or loss on the hedging instrument that has been recognised in other comprehensive income from the period when the hedge was effective (see paragraph 95(a)) shall remain separately in equity until the forecast transaction occurs. When the transaction occurs, paragraph 97, 98 or 100 applies.
- (c) The forecast transaction is no longer expected to occur, in which case any related cumulative gain or loss on the hedging instrument that has been recognised in other comprehensive income from the period when the hedge was effective (see paragraph 95(a)) shall be reclassified from equity to profit or loss as a reclassification adjustment. A forecast transaction that is no longer highly probable (see paragraph 88(c)) may still be expected to occur.
- (d) The entity revokes the designation. For hedges of a forecast transaction, the cumulative gain or loss on the hedging instrument that has been recognised in other comprehensive income from the period when the hedge was effective (see paragraph 95(a)) shall remain separately in equity until the forecast transaction occurs or is no longer expected to occur. When the transaction occurs, paragraph 97, 98 or 100 applies. If the transaction is no longer expected to occur, the cumulative gain or loss that had been recognised in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment.

#### **Hedges of a net investment**

102 Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment (see IAS 21), shall be accounted for similarly to cash flow hedges:

- (a) the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge (see paragraph 88) shall be recognised in other comprehensive income; and
- (b) the ineffective portion shall be recognised in profit or loss.

The gain or loss on the hedging instrument relating to the effective portion of the hedge that has been recognised in other comprehensive income shall be reclassified from equity to profit or loss as a reclassification adjustment (see IAS 1 (revised 2007)) in accordance with paragraphs 48–49 of IAS 21 on the disposal or partial disposal of the foreign operation.

IAS 39

### Effective date and transition

- 103 An entity shall apply this Standard (including the amendments issued in March 2004) for annual periods beginning on or after 1 January 2005. Earlier application is permitted. An entity shall not apply this Standard (including the amendments issued in March 2004) for annual periods beginning before 1 January 2005 unless it also applies IAS 32 (issued December 2003). If an entity applies this Standard for a period beginning before 1 January 2005, it shall disclose that fact.
- 103A An entity shall apply the amendment in paragraph 2(j) for annual periods beginning on or after 1 January 2006. If an entity applies IFRIC 5 *Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds* for an earlier period, this amendment shall be applied for that earlier period.
- 103B *Financial Guarantee Contracts* (Amendments to IAS 39 and IFRS 4), issued in August 2005, amended paragraphs 2(e) and (h), 4, 47 and AG4, added paragraph AG4A, added a new definition of financial guarantee contracts in paragraph 9, and deleted paragraph 3. An entity shall apply those amendments for annual periods beginning on or after 1 January 2006. Earlier application is encouraged. If an entity applies these changes for an earlier period, it shall disclose that fact and apply the related amendments to IAS 32<sup>\*</sup> and IFRS 4 at the same time.
- 103C IAS 1 (as revised in 2007) amended the terminology used throughout IFRSs. In addition it amended paragraphs 26, 27, 34, 54, 55, 57, 67, 68, 95(a), 97, 98, 100, 102, 105, 108, AG4D, AG4E(d)(i), AG56, AG67, AG83 and AG99B. An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. If an entity applies IAS 1 (revised 2007) for an earlier period, the amendments shall be applied for that earlier period.
- 103D IFRS 3 (as revised in 2008) deleted paragraph 2(f). An entity shall apply that amendment for annual periods beginning on or after 1 July 2009. If an entity applies IFRS 3 (revised 2008) for an earlier period, the amendment shall also be applied for that earlier period.
- 103E IAS 27 (as amended in 2008) amended paragraph 102. An entity shall apply that amendment for annual periods beginning on or after 1 July 2009. If an entity applies IAS 27 (amended 2008) for an earlier period, the amendment shall be applied for that earlier period.
- 103F An entity shall apply the amendment in paragraph 2 for annual periods beginning on or after 1 January 2009. If an entity applies *Puttable Financial Instruments and Obligations Arising on Liquidation* (Amendments to IAS 32 and IAS 1), issued in February 2008, for an earlier period, the amendment in paragraph 2 shall be applied for that earlier period.
- 103G An entity shall apply paragraphs AG99BA, AG99E, AG99F, AG110A and AG110B retrospectively for annual periods beginning on or after 1 July 2009, in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*. Earlier application is permitted. If an entity applies *Eligible Hedged Items* (Amendment to IAS 39) for periods beginning before 1 July 2009, it shall disclose that fact.

\* When an entity applies IFRS 7, the reference to IAS 32 is replaced by a reference to IFRS 7.

IAS 39

- 103H *Reclassification of Financial Assets* (Amendments to IAS 39 and IFRS 7), issued in October 2008, amended paragraphs 50 and AG8, and added paragraphs 50B–50F. An entity shall apply those amendments on or after 1 July 2008. An entity shall not reclassify a financial asset in accordance with paragraph 50B, 50D or 50E before 1 July 2008. Any reclassification of a financial asset made on or after 1 November 2008 shall take effect only from the date when the reclassification is made. Any reclassification of a financial asset in accordance with paragraph 50B, 50D or 50E shall not be applied retrospectively before 1 July 2008.
- 103I *Reclassification of Financial Assets—Effective Date and Transition* (Amendments to IAS 39 and IFRS 7), issued in November 2008, amended paragraph 103H. An entity shall apply that amendment on or after 1 July 2008.
- 103J An entity shall apply paragraph 12, as amended by *Embedded Derivatives* (Amendments to IFRIC 9 and IAS 39), issued in March 2009, for annual periods ending on or after 30 June 2009.
- 103K *Improvements to IFRSs* issued in April 2009 amended paragraphs 2(g), 97, 100 and AG30(g). An entity shall apply the amendments to paragraphs 2(g), 97 and 100 prospectively to all unexpired contracts for annual periods beginning on or after 1 January 2010. An entity shall apply the amendment to paragraph AG30(g) for annual periods beginning on or after 1 January 2010. Earlier application is permitted. If an entity applies the amendment for an earlier period it shall disclose that fact.
- 103L IFRS 9, issued in November 2009, amended paragraphs 1, 9–11A, 13, 14, 26(b), 27(b), 31, 33, 34(b), 43, 44, 47, 48, 50, 50A, 53–58, 63, 88(d), 89(b), 90, 96(c), AG3, AG3A, AG4B–AG4E, AG4H, AG4I, AG8, AG50, AG53, AG56, AG64, AG76A, AG80, AG81, AG83, AG84, AG95, AG96 and AG114(a) and deleted paragraphs 45, 46, 50B–52, 61, 66–70, 79, AG16–AG26, AG30(b), AG30(f) and AG65–AG68. An entity shall apply those amendments when it applies IFRS 9.
- 103M At the date of initial application of IFRS 9, an entity:
- (a) may designate a financial liability as measured at fair value through profit or loss in accordance with paragraph 9(b)(i) of IAS 39.
  - (b) shall revoke its previous designation of a financial liability as measured at fair value through profit or loss if such designation was made at initial recognition in accordance with paragraph 9(b)(i) of IAS 39 and such designation does not satisfy that condition at the date of initial application of IFRS 9.
  - (c) may revoke its previous designation of a financial liability as measured at fair value through profit or loss if such designation was made at initial recognition in accordance with paragraph 9(b)(i) of IAS 39 and such designation satisfies that condition at the date of initial application of IFRS 9.
- Such designation shall be made on the basis of the facts and circumstances that exist at the date of initial application of IFRS 9. That classification shall be applied retrospectively.

IAS 39

- 104 This Standard shall be applied retrospectively except as specified in paragraphs 105–108. The opening balance of retained earnings for the earliest prior period presented and all other comparative amounts shall be adjusted as if this Standard had always been in use unless restating the information would be impracticable. If restatement is impracticable, the entity shall disclose that fact and indicate the extent to which the information was restated.
- 105 When this Standard is first applied, an entity is permitted to designate a previously recognised financial asset as available for sale. For any such financial asset the entity shall recognise all cumulative changes in fair value in a separate component of equity until subsequent derecognition or impairment, when the entity shall reclassify that cumulative gain or loss from equity to profit or loss as a reclassification adjustment (see IAS 1 (revised 2007)). The entity shall also:
- (a) restate the financial asset using the new designation in the comparative financial statements; and
  - (b) disclose the fair value of the financial assets at the date of designation and their classification and carrying amount in the previous financial statements.
- 105A An entity shall apply paragraphs 11A, 48A, AG4B–AG4K, AG33A and AG33B and the 2005 amendments in paragraphs 9, 12 and 13 for annual periods beginning on or after 1 January 2006. Earlier application is encouraged.
- 105B An entity that first applies paragraphs 11A, 48A, AG4B–AG4K, AG33A and AG33B and the 2005 amendments in paragraphs 9, 12 and 13 in its annual period beginning before 1 January 2006
- (a) is permitted, when those new and amended paragraphs are first applied, to designate as at fair value through profit or loss any previously recognised financial asset or financial liability that then qualifies for such designation. When the annual period begins before 1 September 2005, such designations need not be completed until 1 September 2005 and may also include financial assets and financial liabilities recognised between the beginning of that annual period and 1 September 2005. Notwithstanding paragraph 91, any financial assets and financial liabilities designated as at fair value through profit or loss in accordance with this subparagraph that were previously designated as the hedged item in fair value hedge accounting relationships shall be de-designated from those relationships at the same time they are designated as at fair value through profit or loss.
  - (b) shall disclose the fair value of any financial assets or financial liabilities designated in accordance with subparagraph (a) at the date of designation and their classification and carrying amount in the previous financial statements.
  - (c) shall de-designate any financial asset or financial liability previously designated as at fair value through profit or loss if it does not qualify for such designation in accordance with those new and amended paragraphs. When a financial asset or financial liability will be measured at amortised cost after de-designation, the date of de-designation is deemed to be its date of initial recognition.

IAS 39

- (d) shall disclose the fair value of any financial assets or financial liabilities de-designated in accordance with subparagraph (c) at the date of de-designation and their new classifications.
- 105C An entity that first applies paragraphs 11A, 48A, AG4B–AG4K, AG33A and AG33B and the 2005 amendments in paragraphs 9, 12 and 13 in its annual period beginning on or after 1 January 2006
  - (a) shall de-designate any financial asset or financial liability previously designated as at fair value through profit or loss only if it does not qualify for such designation in accordance with those new and amended paragraphs. When a financial asset or financial liability will be measured at amortised cost after de-designation, the date of de-designation is deemed to be its date of initial recognition.
  - (b) shall not designate as at fair value through profit or loss any previously recognised financial assets or financial liabilities.
  - (c) shall disclose the fair value of any financial assets or financial liabilities de-designated in accordance with subparagraph (a) at the date of de-designation and their new classifications.
- 105D An entity shall restate its comparative financial statements using the new designations in paragraph 105B or 105C provided that, in the case of a financial asset, financial liability, or group of financial assets, financial liabilities or both, designated as at fair value through profit or loss, those items or groups would have met the criteria in paragraph 9(b)(i), 9(b)(ii) or 11A at the beginning of the comparative period or, if acquired after the beginning of the comparative period, would have met the criteria in paragraph 9(b)(i), 9(b)(ii) or 11A at the date of initial recognition.
- 106 Except as permitted by paragraph 107, an entity shall apply the derecognition requirements in paragraphs 15–37 and Appendix A paragraphs AG36–AG52 prospectively. Accordingly, if an entity derecognised financial assets under IAS 39 (revised 2000) as a result of a transaction that occurred before 1 January 2004 and those assets would not have been derecognised under this Standard, it shall not recognise those assets.
- 107 Notwithstanding paragraph 106, an entity may apply the derecognition requirements in paragraphs 15–37 and Appendix A paragraphs AG36–AG52 retrospectively from a date of the entity's choosing, provided that the information needed to apply IAS 39 to assets and liabilities derecognised as a result of past transactions was obtained at the time of initially accounting for those transactions.
- 107A Notwithstanding paragraph 104, an entity may apply the requirements in the last sentence of paragraph AG76, and paragraph AG76A, in either of the following ways:
  - (a) prospectively to transactions entered into after 25 October 2002; or
  - (b) prospectively to transactions entered into after 1 January 2004.

IAS 39

- 108 An entity shall not adjust the carrying amount of non-financial assets and non-financial liabilities to exclude gains and losses related to cash flow hedges that were included in the carrying amount before the beginning of the financial year in which this Standard is first applied. At the beginning of the financial period in which this Standard is first applied, any amount recognised outside profit or loss (in other comprehensive income or directly in equity) for a hedge of a firm commitment that under this Standard is accounted for as a fair value hedge shall be reclassified as an asset or liability, except for a hedge of foreign currency risk that continues to be treated as a cash flow hedge.
- 108A An entity shall apply the last sentence of paragraph 80, and paragraphs AG99A and AG99B, for annual periods beginning on or after 1 January 2006. Earlier application is encouraged. If an entity has designated as the hedged item an external forecast transaction that
- (a) is denominated in the functional currency of the entity entering into the transaction,
  - (b) gives rise to an exposure that will have an effect on consolidated profit or loss (ie is denominated in a currency other than the group's presentation currency), and
  - (c) would have qualified for hedge accounting had it not been denominated in the functional currency of the entity entering into it,
- it may apply hedge accounting in the consolidated financial statements in the period(s) before the date of application of the last sentence of paragraph 80, and paragraphs AG99A and AG99B.
- 108B An entity need not apply paragraph AG99B to comparative information relating to periods before the date of application of the last sentence of paragraph 80 and paragraph AG99A.
- 108C Paragraphs 9, 73 and AG8 were amended and paragraph 50A added by *Improvements to IFRSs* issued in May 2008. Paragraph 80 was amended by *Improvements to IFRSs* issued in April 2009. An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. An entity shall apply the amendments in paragraphs 9 and 50A as of the date and in the manner it applied the 2005 amendments described in paragraph 105A. Earlier application of all the amendments is permitted. If an entity applies the amendments for an earlier period it shall disclose that fact.

### Withdrawal of other pronouncements

---

- 109 This Standard supersedes IAS 39 *Financial Instruments: Recognition and Measurement* revised in October 2000.
- 110 This Standard and the accompanying Implementation Guidance supersede the Implementation Guidance issued by the IAS 39 Implementation Guidance Committee, established by the former IASC.

IAS 39

## **Appendix A** **Application guidance**

*This appendix is an integral part of the Standard.*

### **Scope (paragraphs 2–7)**

---

- AG1 Some contracts require a payment based on climatic, geological or other physical variables. (Those based on climatic variables are sometimes referred to as ‘weather derivatives’.) If those contracts are not within the scope of IFRS 4, they are within the scope of this Standard.
- AG2 This Standard does not change the requirements relating to employee benefit plans that comply with IAS 26 *Accounting and Reporting by Retirement Benefit Plans* and royalty agreements based on the volume of sales or service revenues that are accounted for under IAS 18.
- AG3 Sometimes, an entity makes what it views as a ‘strategic investment’ in equity instruments issued by another entity, with the intention of establishing or maintaining a long-term operating relationship with the entity in which the investment is made. The investor entity uses IAS 28 to determine whether the equity method of accounting is appropriate for such an investment. Similarly, the investor entity uses IAS 31 to determine whether proportionate consolidation or the equity method is appropriate for such an investment. If neither the equity method nor proportionate consolidation is appropriate, the entity applies this Standard and IFRS 9 to that strategic investment.
- AG3A This Standard and IFRS 9 apply to the financial assets and financial liabilities of insurers, other than rights and obligations that paragraph 2(e) excludes because they arise under contracts within the scope of IFRS 4.
- AG4 Financial guarantee contracts may have various legal forms, such as a guarantee, some types of letter of credit, a credit default contract or an insurance contract. Their accounting treatment does not depend on their legal form. The following are examples of the appropriate treatment (see paragraph 2(e)):
- (a) Although a financial guarantee contract meets the definition of an insurance contract in IFRS 4 if the risk transferred is significant, the issuer applies this Standard. Nevertheless, if the issuer has previously asserted explicitly that it regards such contracts as insurance contracts and has used accounting applicable to insurance contracts, the issuer may elect to apply either this Standard or IFRS 4 to such financial guarantee contracts. If this Standard applies, paragraph 43 requires the issuer to recognise a financial guarantee contract initially at fair value. If the financial guarantee contract was issued to an unrelated party in a stand-alone arm’s length transaction, its fair value at inception is likely to equal the premium received, unless there is evidence to the contrary. Subsequently, unless the financial guarantee contract was designated at inception as at fair value through profit or loss or unless paragraphs 29–37 and AG47–AG52 apply (when a transfer of a financial asset does not qualify for derecognition or the continuing involvement approach applies), the issuer measures it at the higher of:

IAS 39

- (i) the amount determined in accordance with IAS 37; and
  - (ii) the amount initially recognised less, when appropriate, cumulative amortisation recognised in accordance with IAS 18 (see paragraph 47(c)).
- (b) Some credit-related guarantees do not, as a precondition for payment, require that the holder is exposed to, and has incurred a loss on, the failure of the debtor to make payments on the guaranteed asset when due. An example of such a guarantee is one that requires payments in response to changes in a specified credit rating or credit index. Such guarantees are not financial guarantee contracts, as defined in this Standard, and are not insurance contracts, as defined in IFRS 4. Such guarantees are derivatives and the issuer applies this Standard to them.
- (c) If a financial guarantee contract was issued in connection with the sale of goods, the issuer applies IAS 18 in determining when it recognises the revenue from the guarantee and from the sale of goods.

AG4A Assertions that an issuer regards contracts as insurance contracts are typically found throughout the issuer's communications with customers and regulators, contracts, business documentation and financial statements. Furthermore, insurance contracts are often subject to accounting requirements that are distinct from the requirements for other types of transaction, such as contracts issued by banks or commercial companies. In such cases, an issuer's financial statements typically include a statement that the issuer has used those accounting requirements.

## Definitions (paragraphs 8 and 9)

---

### Designation as at fair value through profit or loss

- AG4B Paragraph 9 of this Standard and paragraph 4.5 of IFRS 9 allow an entity to designate a financial asset, a financial liability, or a group of financial instruments (financial assets, financial liabilities or both) as at fair value through profit or loss provided that doing so results in more relevant information.
- AG4C The decision of an entity to designate a financial asset or financial liability as at fair value through profit or loss is similar to an accounting policy choice (although, unlike an accounting policy choice, it is not required to be applied consistently to all similar transactions). When an entity has such a choice, paragraph 14(b) of IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* requires the chosen policy to result in the financial statements providing reliable and more relevant information about the effects of transactions, other events and conditions on the entity's financial position, financial performance or cash flows. For example, in the case of designation of a financial liability as at fair value through profit or loss, paragraph 9 sets out the two circumstances when the requirement for more relevant information will be met. Accordingly, to choose such designation in accordance with paragraph 9, the entity needs to demonstrate that it falls within one (or both) of these two circumstances.



IAS 39

*Paragraph 9(b)(i): Designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise*

AG4D Under IAS 39 and IFRS 9, measurement of a financial asset or financial liability and classification of recognised changes in its value are determined by the item's classification and whether the item is part of a designated hedging relationship. Those requirements can create a measurement or recognition inconsistency (sometimes referred to as an 'accounting mismatch') when, for example, in the absence of designation as at fair value through profit or loss, a financial asset would be classified as measured at fair value in accordance with IFRS 9 and a liability the entity considers related would be measured at amortised cost (with changes in fair value not recognised). In such circumstances, an entity may conclude that its financial statements would provide more relevant information if both the asset and the liability were measured as at fair value through profit or loss.

AG4E The following examples show when this condition could be met. In all cases, an entity may use this condition to designate financial assets or financial liabilities as at fair value through profit or loss only if it meets the principle in paragraph 9(b)(i) or paragraph 4.5 of IFRS 9.

- (a) [deleted]
- (b) An entity has liabilities under insurance contracts whose measurement incorporates current information (as permitted by IFRS 4, paragraph 24), and financial assets it considers related that would otherwise be measured at amortised cost.
- (c) An entity has financial assets, financial liabilities or both that share a risk, such as interest rate risk, that gives rise to opposite changes in fair value that tend to offset each other. However, only some of the instruments would be measured at fair value through profit or loss (ie are derivatives, or are classified as held for trading). It may also be the case that the requirements for hedge accounting are not met, for example because the requirements for effectiveness in paragraph 88 are not met.
- (d) An entity has financial assets, financial liabilities or both that share a risk, such as interest rate risk, that gives rise to opposite changes in fair value that tend to offset each other and the entity does not qualify for hedge accounting because none of the instruments is a derivative. Furthermore, in the absence of hedge accounting there is a significant inconsistency in the recognition of gains and losses. For example, the entity has financed a specified group of loans by issuing traded bonds whose changes in fair value tend to offset each other. If, in addition, the entity regularly buys and sells the bonds but rarely, if ever, buys and sells the loans, reporting both the loans and the bonds at fair value through profit or loss eliminates the inconsistency in the timing of recognition of gains and losses that would otherwise result from measuring them both at amortised cost and recognising a gain or loss each time a bond is repurchased.

AG4F In cases such as those described in the preceding paragraph, to designate, at initial recognition, the financial assets and financial liabilities not otherwise so

IAS 39

measured as at fair value through profit or loss may eliminate or significantly reduce the measurement or recognition inconsistency and produce more relevant information. For practical purposes, the entity need not enter into all of the assets and liabilities giving rise to the measurement or recognition inconsistency at exactly the same time. A reasonable delay is permitted provided that each transaction is designated as at fair value through profit or loss at its initial recognition and, at that time, any remaining transactions are expected to occur.

AG4G It would not be acceptable to designate only some of the financial assets and financial liabilities giving rise to the inconsistency as at fair value through profit or loss if to do so would not eliminate or significantly reduce the inconsistency and would therefore not result in more relevant information. However, it would be acceptable to designate only some of a number of similar financial assets or similar financial liabilities if doing so achieves a significant reduction (and possibly a greater reduction than other allowable designations) in the inconsistency. For example, assume an entity has a number of similar financial liabilities that sum to CU100<sup>\*</sup> and a number of similar financial assets that sum to CU50 but are measured on a different basis. The entity may significantly reduce the measurement inconsistency by designating at initial recognition all of the assets but only some of the liabilities (for example, individual liabilities with a combined total of CU45) as at fair value through profit or loss. However, because designation as at fair value through profit or loss can be applied only to the whole of a financial instrument, the entity in this example must designate one or more liabilities in their entirety. It could not designate either a component of a liability (eg changes in value attributable to only one risk, such as changes in a benchmark interest rate) or a proportion (ie percentage) of a liability.

*Paragraph 9(b)(ii): A group of financial liabilities or financial assets and financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy*

AG4H An entity may manage and evaluate the performance of a group of financial liabilities or financial assets and financial liabilities in such a way that measuring that group at fair value through profit or loss results in more relevant information. The focus in this instance is on the way the entity manages and evaluates performance, rather than on the nature of its financial instruments.

AG4I For example, an entity may use this condition to designate financial liabilities as at fair value through profit or loss if it meets the principle in paragraph 9(b)(ii) and the entity has financial assets and financial liabilities that share one or more risks and those risks are managed and evaluated on a fair value basis in accordance with a documented policy of asset and liability management. An example could be an entity that has issued 'structured products' containing multiple embedded derivatives and manages the resulting risks on a fair value basis using a mix of derivative and non-derivative financial instruments.

AG4J As noted above, this condition relies on the way the entity manages and evaluates performance of the group of financial instruments under consideration. Accordingly, (subject to the requirement of designation at initial recognition) an

---

\* In this Standard, monetary amounts are denominated in 'currency units (CU)'.

IAS 39

entity that designates financial instruments as at fair value through profit or loss on the basis of this condition shall so designate all eligible financial instruments that are managed and evaluated together.

- AG4K Documentation of the entity's strategy need not be extensive but should be sufficient to demonstrate compliance with paragraph 9(b)(ii). Such documentation is not required for each individual item, but may be on a portfolio basis. For example, if the performance management system for a department—as approved by the entity's key management personnel—clearly demonstrates that its performance is evaluated on a total return basis, no further documentation is required to demonstrate compliance with paragraph 9(b)(ii).

### **Effective interest rate**

- AG5 In some cases, financial assets are acquired at a deep discount that reflects incurred credit losses. Entities include such incurred credit losses in the estimated cash flows when computing the effective interest rate.
- AG6 When applying the effective interest method, an entity generally amortises any fees, points paid or received, transaction costs and other premiums or discounts included in the calculation of the effective interest rate over the expected life of the instrument. However, a shorter period is used if this is the period to which the fees, points paid or received, transaction costs, premiums or discounts relate. This will be the case when the variable to which the fees, points paid or received, transaction costs, premiums or discounts relate is repriced to market rates before the expected maturity of the instrument. In such a case, the appropriate amortisation period is the period to the next such repricing date. For example, if a premium or discount on a floating rate instrument reflects interest that has accrued on the instrument since interest was last paid, or changes in market rates since the floating interest rate was reset to market rates, it will be amortised to the next date when the floating interest is reset to market rates. This is because the premium or discount relates to the period to the next interest reset date because, at that date, the variable to which the premium or discount relates (ie interest rates) is reset to market rates. If, however, the premium or discount results from a change in the credit spread over the floating rate specified in the instrument, or other variables that are not reset to market rates, it is amortised over the expected life of the instrument.
- AG7 For floating rate financial assets and floating rate financial liabilities, periodic re-estimation of cash flows to reflect movements in market rates of interest alters the effective interest rate. If a floating rate financial asset or floating rate financial liability is recognised initially at an amount equal to the principal receivable or payable on maturity, re-estimating the future interest payments normally has no significant effect on the carrying amount of the asset or liability.
- AG8 If an entity revises its estimates of payments or receipts, the entity shall adjust the carrying amount of the financial asset or financial liability (or group of financial instruments) to reflect actual and revised estimated cash flows. The entity recalculates the carrying amount by computing the present value of estimated future cash flows at the financial instrument's original effective interest rate or, when applicable, the revised effective interest rate calculated in accordance with paragraph 92. The adjustment is recognised in profit or loss as income or expense.

## Derivatives

- AG9 Typical examples of derivatives are futures and forward, swap and option contracts. A derivative usually has a notional amount, which is an amount of currency, a number of shares, a number of units of weight or volume or other units specified in the contract. However, a derivative instrument does not require the holder or writer to invest or receive the notional amount at the inception of the contract. Alternatively, a derivative could require a fixed payment or payment of an amount that can change (but not proportionally with a change in the underlying) as a result of some future event that is unrelated to a notional amount. For example, a contract may require a fixed payment of CU1,000 if six-month LIBOR increases by 100 basis points. Such a contract is a derivative even though a notional amount is not specified.
- AG10 The definition of a derivative in this Standard includes contracts that are settled gross by delivery of the underlying item (eg a forward contract to purchase a fixed rate debt instrument). An entity may have a contract to buy or sell a non-financial item that can be settled net in cash or another financial instrument or by exchanging financial instruments (eg a contract to buy or sell a commodity at a fixed price at a future date). Such a contract is within the scope of this Standard unless it was entered into and continues to be held for the purpose of delivery of a non-financial item in accordance with the entity's expected purchase, sale or usage requirements (see paragraphs 5–7).
- AG11 One of the defining characteristics of a derivative is that it has an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors. An option contract meets that definition because the premium is less than the investment that would be required to obtain the underlying financial instrument to which the option is linked. A currency swap that requires an initial exchange of different currencies of equal fair values meets the definition because it has a zero initial net investment.
- AG12 A regular way purchase or sale gives rise to a fixed price commitment between trade date and settlement date that meets the definition of a derivative. However, because of the short duration of the commitment it is not recognised as a derivative financial instrument. Rather, this Standard provides for special accounting for such regular way contracts (see paragraphs 38 and AG53–AG56).
- AG12A The definition of a derivative refers to non-financial variables that are not specific to a party to the contract. These include an index of earthquake losses in a particular region and an index of temperatures in a particular city. Non-financial variables specific to a party to the contract include the occurrence or non-occurrence of a fire that damages or destroys an asset of a party to the contract. A change in the fair value of a non-financial asset is specific to the owner if the fair value reflects not only changes in market prices for such assets (a financial variable) but also the condition of the specific non-financial asset held (a non-financial variable). For example, if a guarantee of the residual value of a specific car exposes the guarantor to the risk of changes in the car's physical condition, the change in that residual value is specific to the owner of the car.

IAS 39

### **Transaction costs**

AG13 Transaction costs include fees and commissions paid to agents (including employees acting as selling agents), advisers, brokers and dealers, levies by regulatory agencies and securities exchanges, and transfer taxes and duties. Transaction costs do not include debt premiums or discounts, financing costs or internal administrative or holding costs.

### **Financial liabilities held for trading**

AG14 Trading generally reflects active and frequent buying and selling, and financial instruments held for trading generally are used with the objective of generating a profit from short-term fluctuations in price or dealer's margin.

AG15 Financial liabilities held for trading include:

- (a) derivative liabilities that are not accounted for as hedging instruments;
- (b) obligations to deliver financial assets borrowed by a short seller (ie an entity that sells financial assets it has borrowed and does not yet own);
- (c) financial liabilities that are incurred with an intention to repurchase them in the near term (eg a quoted debt instrument that the issuer may buy back in the near term depending on changes in its fair value); and
- (d) financial liabilities that are part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking.

The fact that a liability is used to fund trading activities does not in itself make that liability one that is held for trading.

AG16– [Deleted]

AG26

### **Embedded derivatives (paragraphs 10–13)**

---

AG27 If a host contract has no stated or predetermined maturity and represents a residual interest in the net assets of an entity, then its economic characteristics and risks are those of an equity instrument, and an embedded derivative would need to possess equity characteristics related to the same entity to be regarded as closely related. If the host contract is not an equity instrument and meets the definition of a financial instrument, then its economic characteristics and risks are those of a debt instrument.

AG28 An embedded non-option derivative (such as an embedded forward or swap) is separated from its host contract on the basis of its stated or implied substantive terms, so as to result in it having a fair value of zero at initial recognition. An embedded option-based derivative (such as an embedded put, call, cap, floor or swaption) is separated from its host contract on the basis of the stated terms of the option feature. The initial carrying amount of the host instrument is the residual amount after separating the embedded derivative.

IAS 39

AG29 Generally, multiple embedded derivatives in a single hybrid contract are treated as a single compound embedded derivative. However, embedded derivatives that are classified as equity (see IAS 32) are accounted for separately from those classified as assets or liabilities. In addition, if a hybrid contract has more than one embedded derivative and those derivatives relate to different risk exposures and are readily separable and independent of each other, they are accounted for separately from each other.

AG30 The economic characteristics and risks of an embedded derivative are not closely related to the host contract (paragraph 11(a)) in the following examples. In these examples, assuming the conditions in paragraph 11(b) and (c) are met, an entity accounts for the embedded derivative separately from the host contract.

- (a) A put option embedded in an instrument that enables the holder to require the issuer to reacquire the instrument for an amount of cash or other assets that varies on the basis of the change in an equity or commodity price or index is not closely related to a host debt instrument.
- (b) [deleted]
- (c) An option or automatic provision to extend the remaining term to maturity of a debt instrument is not closely related to the host debt instrument unless there is a concurrent adjustment to the approximate current market rate of interest at the time of the extension. If an entity issues a debt instrument and the holder of that debt instrument writes a call option on the debt instrument to a third party, the issuer regards the call option as extending the term to maturity of the debt instrument provided the issuer can be required to participate in or facilitate the remarketing of the debt instrument as a result of the call option being exercised.
- (d) Equity-indexed interest or principal payments embedded in a host debt instrument or insurance contract—by which the amount of interest or principal is indexed to the value of equity instruments—are not closely related to the host instrument because the risks inherent in the host and the embedded derivative are dissimilar.
- (e) Commodity-indexed interest or principal payments embedded in a host debt instrument or insurance contract—by which the amount of interest or principal is indexed to the price of a commodity (such as gold)—are not closely related to the host instrument because the risks inherent in the host and the embedded derivative are dissimilar.
- (f) [deleted]
- (g) A call, put, or prepayment option embedded in a host debt contract or host insurance contract is not closely related to the host contract unless:
  - (i) the option's exercise price is approximately equal on each exercise date to the amortised cost of the host debt instrument or the carrying amount of the host insurance contract; or
  - (ii) the exercise price of a prepayment option reimburses the lender for an amount up to the approximate present value of lost interest for the remaining term of the host contract. Lost interest is the product of the principal amount prepaid multiplied by the interest rate

IAS 39

differential. The interest rate differential is the excess of the effective interest rate of the host contract over the effective interest rate the entity would receive at the prepayment date if it reinvested the principal amount prepaid in a similar contract for the remaining term of the host contract.

The assessment of whether the call or put option is closely related to the host debt contract is made before separating the equity element of a convertible debt instrument in accordance with IAS 32.

- (h) Credit derivatives that are embedded in a host debt instrument and allow one party (the 'beneficiary') to transfer the credit risk of a particular reference asset, which it may not own, to another party (the 'guarantor') are not closely related to the host debt instrument. Such credit derivatives allow the guarantor to assume the credit risk associated with the reference asset without directly owning it.

AG31 An example of a hybrid contract is a financial instrument that gives the holder a right to put the financial instrument back to the issuer in exchange for an amount of cash or other financial assets that varies on the basis of the change in an equity or commodity index that may increase or decrease (a 'puttable instrument'). Unless the issuer on initial recognition designates the puttable instrument as a financial liability at fair value through profit or loss, it is required to separate an embedded derivative (ie the indexed principal payment) under paragraph 11 because the host contract is a debt instrument under paragraph AG27 and the indexed principal payment is not closely related to a host debt instrument under paragraph AG30(a). Because the principal payment can increase and decrease, the embedded derivative is a non-option derivative whose value is indexed to the underlying variable.

AG32 In the case of a puttable instrument that can be put back at any time for cash equal to a proportionate share of the net asset value of an entity (such as units of an open-ended mutual fund or some unit-linked investment products), the effect of separating an embedded derivative and accounting for each component is to measure the hybrid contract at the redemption amount that is payable at the end of the reporting period if the holder exercised its right to put the instrument back to the issuer.

AG33 The economic characteristics and risks of an embedded derivative are closely related to the economic characteristics and risks of the host contract in the following examples. In these examples, an entity does not account for the embedded derivative separately from the host contract.

- (a) An embedded derivative in which the underlying is an interest rate or interest rate index that can change the amount of interest that would otherwise be paid or received on an interest-bearing host debt contract or insurance contract is closely related to the host contract unless the hybrid contract can be settled in such a way that the holder would not recover substantially all of its recognised investment or the embedded derivative could at least double the holder's initial rate of return on the host contract and could result in a rate of return that is at least twice what the market return would be for a contract with the same terms as the host contract.

IAS 39

- (b) An embedded floor or cap on the interest rate on a debt contract or insurance contract is closely related to the host contract, provided the cap is at or above the market rate of interest and the floor is at or below the market rate of interest when the contract is issued, and the cap or floor is not leveraged in relation to the host contract. Similarly, provisions included in a contract to purchase or sell an asset (eg a commodity) that establish a cap and a floor on the price to be paid or received for the asset are closely related to the host contract if both the cap and floor were out of the money at inception and are not leveraged.
- (c) An embedded foreign currency derivative that provides a stream of principal or interest payments that are denominated in a foreign currency and is embedded in a host debt instrument (eg a dual currency bond) is closely related to the host debt instrument. Such a derivative is not separated from the host instrument because IAS 21 requires foreign currency gains and losses on monetary items to be recognised in profit or loss.
- (d) An embedded foreign currency derivative in a host contract that is an insurance contract or not a financial instrument (such as a contract for the purchase or sale of a non-financial item where the price is denominated in a foreign currency) is closely related to the host contract provided it is not leveraged, does not contain an option feature, and requires payments denominated in one of the following currencies:
  - (i) the functional currency of any substantial party to that contract;
  - (ii) the currency in which the price of the related good or service that is acquired or delivered is routinely denominated in commercial transactions around the world (such as the US dollar for crude oil transactions); or
  - (iii) a currency that is commonly used in contracts to purchase or sell non-financial items in the economic environment in which the transaction takes place (eg a relatively stable and liquid currency that is commonly used in local business transactions or external trade).
- (e) An embedded prepayment option in an interest-only or principal-only strip is closely related to the host contract provided the host contract (i) initially resulted from separating the right to receive contractual cash flows of a financial instrument that, in and of itself, did not contain an embedded derivative, and (ii) does not contain any terms not present in the original host debt contract.
- (f) An embedded derivative in a host lease contract is closely related to the host contract if the embedded derivative is (i) an inflation-related index such as an index of lease payments to a consumer price index (provided that the lease is not leveraged and the index relates to inflation in the entity's own economic environment), (ii) contingent rentals based on related sales or (iii) contingent rentals based on variable interest rates.
- (g) A unit-linking feature embedded in a host financial instrument or host insurance contract is closely related to the host instrument or host contract if the unit-denominated payments are measured at current unit values that reflect the fair values of the assets of the fund. A unit-linking feature is a



IAS 39

contractual term that requires payments denominated in units of an internal or external investment fund.

- (h) A derivative embedded in an insurance contract is closely related to the host insurance contract if the embedded derivative and host insurance contract are so interdependent that an entity cannot measure the embedded derivative separately (ie without considering the host contract).

### **Instruments containing embedded derivatives**

AG33A When an entity becomes a party to a hybrid (combined) contract that contains one or more embedded derivatives, paragraph 11 requires the entity to identify any such embedded derivative, assess whether it is required to be separated from the host contract and, for those that are required to be separated, measure the derivatives at fair value at initial recognition and subsequently. These requirements can be more complex, or result in less reliable measures, than measuring the entire instrument at fair value through profit or loss. For that reason this Standard permits the entire hybrid contract to be designated as at fair value through profit or loss.

AG33B Such designation may be used whether paragraph 11 requires the embedded derivatives to be separated from the host contract or prohibits such separation. However, paragraph 11A would not justify designating the hybrid (combined) contract as at fair value through profit or loss in the cases set out in paragraph 11A(a) and (b) because doing so would not reduce complexity or increase reliability.

## **Recognition and derecognition (paragraphs 14–42)**

---

### **Initial recognition (paragraph 14)**

AG34 As a consequence of the principle in paragraph 14 and paragraph 3.1.1 of IFRS 9, an entity recognises all of its contractual rights and obligations under derivatives in its statement of financial position as assets and liabilities, respectively, except for derivatives that prevent a transfer of financial assets from being accounted for as a sale (see paragraph AG49). If a transfer of a financial asset does not qualify for derecognition, the transferee does not recognise the transferred asset as its asset (see paragraph AG50).

AG35 The following are examples of applying the principle in paragraph 14 and paragraph 3.1.1 of IFRS 9:

- (a) unconditional receivables and payables are recognised as assets or liabilities when the entity becomes a party to the contract and, as a consequence, has a legal right to receive or a legal obligation to pay cash.
- (b) assets to be acquired and liabilities to be incurred as a result of a firm commitment to purchase or sell goods or services are generally not recognised until at least one of the parties has performed under the agreement. For example, an entity that receives a firm order does not generally recognise an asset (and the entity that places the order does not recognise a liability) at the time of the commitment but, rather, delays

A912

© IASCF

IAS 39

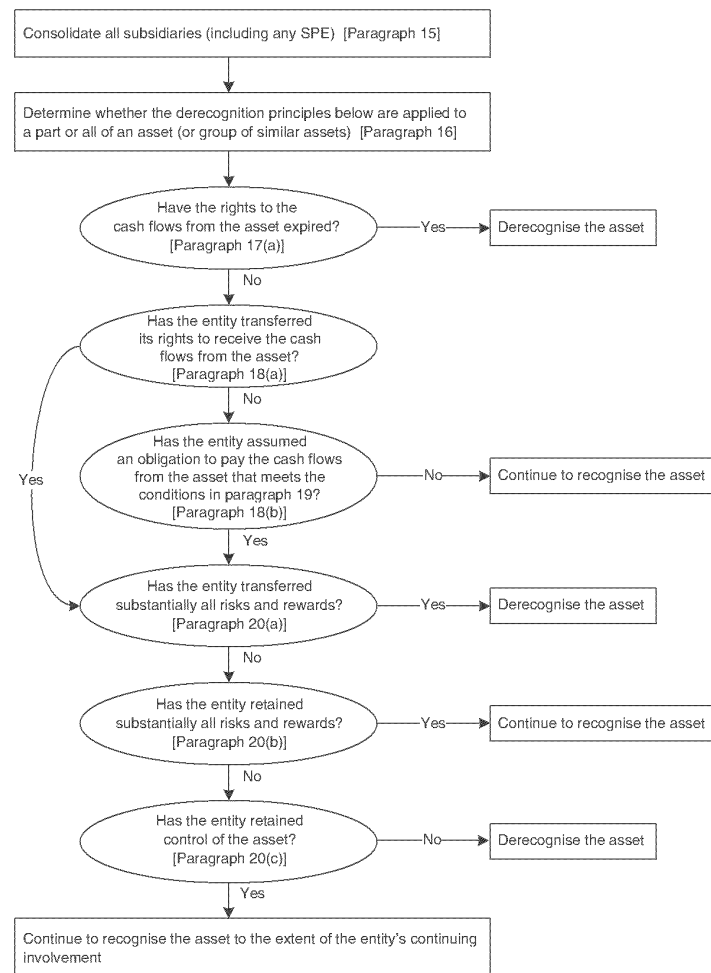
recognition until the ordered goods or services have been shipped, delivered or rendered. If a firm commitment to buy or sell non-financial items is within the scope of this Standard under paragraphs 5–7, its net fair value is recognised as an asset or liability on the commitment date (see (c) below). In addition, if a previously unrecognised firm commitment is designated as a hedged item in a fair value hedge, any change in the net fair value attributable to the hedged risk is recognised as an asset or liability after the inception of the hedge (see paragraphs 93 and 94).

- (c) a forward contract that is within the scope of this Standard (see paragraphs 2–7) is recognised as an asset or a liability on the commitment date, rather than on the date on which settlement takes place. When an entity becomes a party to a forward contract, the fair values of the right and obligation are often equal, so that the net fair value of the forward is zero. If the net fair value of the right and obligation is not zero, the contract is recognised as an asset or liability.
- (d) option contracts that are within the scope of this Standard (see paragraphs 2–7) are recognised as assets or liabilities when the holder or writer becomes a party to the contract.
- (e) planned future transactions, no matter how likely, are not assets and liabilities because the entity has not become a party to a contract.

IAS 39

### Derecognition of a financial asset (paragraphs 15–37)

AG36 The following flow chart illustrates the evaluation of whether and to what extent a financial asset is derecognised.



IAS 39

*Arrangements under which an entity retains the contractual rights to receive the cash flows of a financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients (paragraph 18(b))*

- AG37 The situation described in paragraph 18(b) (when an entity retains the contractual rights to receive the cash flows of the financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients) occurs, for example, if the entity is a special purpose entity or trust, and issues to investors beneficial interests in the underlying financial assets that it owns and provides servicing of those financial assets. In that case, the financial assets qualify for derecognition if the conditions in paragraphs 19 and 20 are met.
- AG38 In applying paragraph 19, the entity could be, for example, the originator of the financial asset, or it could be a group that includes a consolidated special purpose entity that has acquired the financial asset and passes on cash flows to unrelated third party investors.

*Evaluation of the transfer of risks and rewards of ownership (paragraph 20)*

- AG39 Examples of when an entity has transferred substantially all the risks and rewards of ownership are:
- (a) an unconditional sale of a financial asset;
  - (b) a sale of a financial asset together with an option to repurchase the financial asset at its fair value at the time of repurchase; and
  - (c) a sale of a financial asset together with a put or call option that is deeply out of the money (ie an option that is so far out of the money it is highly unlikely to go into the money before expiry).
- AG40 Examples of when an entity has retained substantially all the risks and rewards of ownership are:
- (a) a sale and repurchase transaction where the repurchase price is a fixed price or the sale price plus a lender's return;
  - (b) a securities lending agreement;
  - (c) a sale of a financial asset together with a total return swap that transfers the market risk exposure back to the entity;
  - (d) a sale of a financial asset together with a deep in-the-money put or call option (ie an option that is so far in the money that it is highly unlikely to go out of the money before expiry); and
  - (e) a sale of short-term receivables in which the entity guarantees to compensate the transferee for credit losses that are likely to occur.
- AG41 If an entity determines that as a result of the transfer, it has transferred substantially all the risks and rewards of ownership of the transferred asset, it does not recognise the transferred asset again in a future period, unless it reacquires the transferred asset in a new transaction.

IAS 39

*Evaluation of the transfer of control*

- AG42 An entity has not retained control of a transferred asset if the transferee has the practical ability to sell the transferred asset. An entity has retained control of a transferred asset if the transferee does not have the practical ability to sell the transferred asset. A transferee has the practical ability to sell the transferred asset if it is traded in an active market because the transferee could repurchase the transferred asset in the market if it needs to return the asset to the entity. For example, a transferee may have the practical ability to sell a transferred asset if the transferred asset is subject to an option that allows the entity to repurchase it, but the transferee can readily obtain the transferred asset in the market if the option is exercised. A transferee does not have the practical ability to sell the transferred asset if the entity retains such an option and the transferee cannot readily obtain the transferred asset in the market if the entity exercises its option.
- AG43 The transferee has the practical ability to sell the transferred asset only if the transferee can sell the transferred asset in its entirety to an unrelated third party and is able to exercise that ability unilaterally and without imposing additional restrictions on the transfer. The critical question is what the transferee is able to do in practice, not what contractual rights the transferee has concerning what it can do with the transferred asset or what contractual prohibitions exist. In particular:
- (a) a contractual right to dispose of the transferred asset has little practical effect if there is no market for the transferred asset; and
  - (b) an ability to dispose of the transferred asset has little practical effect if it cannot be exercised freely. For that reason:
    - (i) the transferee's ability to dispose of the transferred asset must be independent of the actions of others (ie it must be a unilateral ability); and
    - (ii) the transferee must be able to dispose of the transferred asset without needing to attach restrictive conditions or 'strings' to the transfer (eg conditions about how a loan asset is serviced or an option giving the transferee the right to repurchase the asset).
- AG44 That the transferee is unlikely to sell the transferred asset does not, of itself, mean that the transferor has retained control of the transferred asset. However, if a put option or guarantee constrains the transferee from selling the transferred asset, then the transferor has retained control of the transferred asset. For example, if a put option or guarantee is sufficiently valuable it constrains the transferee from selling the transferred asset because the transferee would, in practice, not sell the transferred asset to a third party without attaching a similar option or other restrictive conditions. Instead, the transferee would hold the transferred asset so as to obtain payments under the guarantee or put option. Under these circumstances the transferor has retained control of the transferred asset.

IAS 39

### **Transfers that qualify for derecognition**

- AG45 An entity may retain the right to a part of the interest payments on transferred assets as compensation for servicing those assets. The part of the interest payments that the entity would give up upon termination or transfer of the servicing contract is allocated to the servicing asset or servicing liability. The part of the interest payments that the entity would not give up is an interest-only strip receivable. For example, if the entity would not give up any interest upon termination or transfer of the servicing contract, the entire interest spread is an interest-only strip receivable. For the purposes of applying paragraph 27, the fair values of the servicing asset and interest-only strip receivable are used to allocate the carrying amount of the receivable between the part of the asset that is derecognised and the part that continues to be recognised. If there is no servicing fee specified or the fee to be received is not expected to compensate the entity adequately for performing the servicing, a liability for the servicing obligation is recognised at fair value.
- AG46 In estimating the fair values of the part that continues to be recognised and the part that is derecognised for the purposes of applying paragraph 27, an entity applies the fair value measurement requirements in paragraphs 48–49 and AG69–AG82 in addition to paragraph 28.

### **Transfers that do not qualify for derecognition**

- AG47 The following is an application of the principle outlined in paragraph 29. If a guarantee provided by the entity for default losses on the transferred asset prevents a transferred asset from being derecognised because the entity has retained substantially all the risks and rewards of ownership of the transferred asset, the transferred asset continues to be recognised in its entirety and the consideration received is recognised as a liability.

### **Continuing involvement in transferred assets**

- AG48 The following are examples of how an entity measures a transferred asset and the associated liability under paragraph 30.

#### *All assets*

- (a) If a guarantee provided by an entity to pay for default losses on a transferred asset prevents the transferred asset from being derecognised to the extent of the continuing involvement, the transferred asset at the date of the transfer is measured at the lower of (i) the carrying amount of the asset and (ii) the maximum amount of the consideration received in the transfer that the entity could be required to repay ('the guarantee amount'). The associated liability is initially measured at the guarantee amount plus the fair value of the guarantee (which is normally the consideration received for the guarantee). Subsequently, the initial fair value of the guarantee is recognised in profit or loss on a time proportion basis (see IAS 18) and the carrying value of the asset is reduced by any impairment losses.

IAS 39

*Assets measured at amortised cost*

- (b) If a put option obligation written by an entity or call option right held by an entity prevents a transferred asset from being derecognised and the entity measures the transferred asset at amortised cost, the associated liability is measured at its cost (ie the consideration received) adjusted for the amortisation of any difference between that cost and the amortised cost of the transferred asset at the expiration date of the option. For example, assume that the amortised cost and carrying amount of the asset on the date of the transfer is CU98 and that the consideration received is CU95. The amortised cost of the asset on the option exercise date will be CU100. The initial carrying amount of the associated liability is CU95 and the difference between CU95 and CU100 is recognised in profit or loss using the effective interest method. If the option is exercised, any difference between the carrying amount of the associated liability and the exercise price is recognised in profit or loss.

*Assets measured at fair value*

- (c) If a call option right retained by an entity prevents a transferred asset from being derecognised and the entity measures the transferred asset at fair value, the asset continues to be measured at its fair value. The associated liability is measured at (i) the option exercise price less the time value of the option if the option is in or at the money, or (ii) the fair value of the transferred asset less the time value of the option if the option is out of the money. The adjustment to the measurement of the associated liability ensures that the net carrying amount of the asset and the associated liability is the fair value of the call option right. For example, if the fair value of the underlying asset is CU80, the option exercise price is CU95 and the time value of the option is CU5, the carrying amount of the associated liability is CU75 (CU80 – CU5) and the carrying amount of the transferred asset is CU80 (ie its fair value).
- (d) If a put option written by an entity prevents a transferred asset from being derecognised and the entity measures the transferred asset at fair value, the associated liability is measured at the option exercise price plus the time value of the option. The measurement of the asset at fair value is limited to the lower of the fair value and the option exercise price because the entity has no right to increases in the fair value of the transferred asset above the exercise price of the option. This ensures that the net carrying amount of the asset and the associated liability is the fair value of the put option obligation. For example, if the fair value of the underlying asset is CU120, the option exercise price is CU100 and the time value of the option is CU5, the carrying amount of the associated liability is CU105 (CU100 + CU5) and the carrying amount of the asset is CU100 (in this case the option exercise price).
- (e) If a collar, in the form of a purchased call and written put, prevents a transferred asset from being derecognised and the entity measures the asset at fair value, it continues to measure the asset at fair value.

IAS 39

The associated liability is measured at (i) the sum of the call exercise price and fair value of the put option less the time value of the call option, if the call option is in or at the money, or (ii) the sum of the fair value of the asset and the fair value of the put option less the time value of the call option if the call option is out of the money. The adjustment to the associated liability ensures that the net carrying amount of the asset and the associated liability is the fair value of the options held and written by the entity. For example, assume an entity transfers a financial asset that is measured at fair value while simultaneously purchasing a call with an exercise price of CU120 and writing a put with an exercise price of CU80. Assume also that the fair value of the asset is CU100 at the date of the transfer. The time value of the put and call are CU1 and CU5 respectively. In this case, the entity recognises an asset of CU100 (the fair value of the asset) and a liability of CU96 [(CU100 + CU1) – CU5]. This gives a net asset value of CU4, which is the fair value of the options held and written by the entity.

**All transfers**

- AG49 To the extent that a transfer of a financial asset does not qualify for derecognition, the transferor's contractual rights or obligations related to the transfer are not accounted for separately as derivatives if recognising both the derivative and either the transferred asset or the liability arising from the transfer would result in recognising the same rights or obligations twice. For example, a call option retained by the transferor may prevent a transfer of financial assets from being accounted for as a sale. In that case, the call option is not separately recognised as a derivative asset.
- AG50 To the extent that a transfer of a financial asset does not qualify for derecognition, the transferee does not recognise the transferred asset as its asset. The transferee derecognises the cash or other consideration paid and recognises a receivable from the transferor. If the transferor has both a right and an obligation to reacquire control of the entire transferred asset for a fixed amount (such as under a repurchase agreement), the transferee may measure its receivable at amortised cost if it meets the criteria in paragraph 4.2 of IFRS 9.

**Examples**

- AG51 The following examples illustrate the application of the derecognition principles of this Standard.
- (a) *Repurchase agreements and securities lending.* If a financial asset is sold under an agreement to repurchase it at a fixed price or at the sale price plus a lender's return or if it is loaned under an agreement to return it to the transferor, it is not derecognised because the transferor retains substantially all the risks and rewards of ownership. If the transferee obtains the right to sell or pledge the asset, the transferor reclassifies the asset in its statement of financial position, for example, as a loaned asset or repurchase receivable.
- (b) *Repurchase agreements and securities lending—assets that are substantially the same.* If a financial asset is sold under an agreement to repurchase the same or substantially the same asset at a fixed price or at the sale price plus a



IAS 39

lender's return or if a financial asset is borrowed or loaned under an agreement to return the same or substantially the same asset to the transferor, it is not derecognised because the transferor retains substantially all the risks and rewards of ownership.

- (c) *Repurchase agreements and securities lending—right of substitution.* If a repurchase agreement at a fixed repurchase price or a price equal to the sale price plus a lender's return, or a similar securities lending transaction, provides the transferee with a right to substitute assets that are similar and of equal fair value to the transferred asset at the repurchase date, the asset sold or lent under a repurchase or securities lending transaction is not derecognised because the transferor retains substantially all the risks and rewards of ownership.
- (d) *Repurchase right of first refusal at fair value.* If an entity sells a financial asset and retains only a right of first refusal to repurchase the transferred asset at fair value if the transferee subsequently sells it, the entity derecognises the asset because it has transferred substantially all the risks and rewards of ownership.
- (e) *Wash sale transaction.* The repurchase of a financial asset shortly after it has been sold is sometimes referred to as a wash sale. Such a repurchase does not preclude derecognition provided that the original transaction met the derecognition requirements. However, if an agreement to sell a financial asset is entered into concurrently with an agreement to repurchase the same asset at a fixed price or the sale price plus a lender's return, then the asset is not derecognised.
- (f) *Put options and call options that are deeply in the money.* If a transferred financial asset can be called back by the transferor and the call option is deeply in the money, the transfer does not qualify for derecognition because the transferor has retained substantially all the risks and rewards of ownership. Similarly, if the financial asset can be put back by the transferee and the put option is deeply in the money, the transfer does not qualify for derecognition because the transferor has retained substantially all the risks and rewards of ownership.
- (g) *Put options and call options that are deeply out of the money.* A financial asset that is transferred subject only to a deep out-of-the-money put option held by the transferee or a deep out-of-the-money call option held by the transferor is derecognised. This is because the transferor has transferred substantially all the risks and rewards of ownership.
- (h) *Readily obtainable assets subject to a call option that is neither deeply in the money nor deeply out of the money.* If an entity holds a call option on an asset that is readily obtainable in the market and the option is neither deeply in the money nor deeply out of the money, the asset is derecognised. This is because the entity (i) has neither retained nor transferred substantially all the risks and rewards of ownership, and (ii) has not retained control. However, if the asset is not readily obtainable in the market, derecognition is precluded to the extent of the amount of the asset that is subject to the call option because the entity has retained control of the asset.

IAS 39

- (i) *A not readily obtainable asset subject to a put option written by an entity that is neither deeply in the money nor deeply out of the money.* If an entity transfers a financial asset that is not readily obtainable in the market, and writes a put option that is not deeply out of the money, the entity neither retains nor transfers substantially all the risks and rewards of ownership because of the written put option. The entity retains control of the asset if the put option is sufficiently valuable to prevent the transferee from selling the asset, in which case the asset continues to be recognised to the extent of the transferor's continuing involvement (see paragraph AG44). The entity transfers control of the asset if the put option is not sufficiently valuable to prevent the transferee from selling the asset, in which case the asset is derecognised.
- (j) *Assets subject to a fair value put or call option or a forward repurchase agreement.* A transfer of a financial asset that is subject only to a put or call option or a forward repurchase agreement that has an exercise or repurchase price equal to the fair value of the financial asset at the time of repurchase results in derecognition because of the transfer of substantially all the risks and rewards of ownership.
- (k) *Cash settled call or put options.* An entity evaluates the transfer of a financial asset that is subject to a put or call option or a forward repurchase agreement that will be settled net in cash to determine whether it has retained or transferred substantially all the risks and rewards of ownership. If the entity has not retained substantially all the risks and rewards of ownership of the transferred asset, it determines whether it has retained control of the transferred asset. That the put or the call or the forward repurchase agreement is settled net in cash does not automatically mean that the entity has transferred control (see paragraphs AG44 and (g), (h) and (i) above).
- (l) *Removal of accounts provision.* A removal of accounts provision is an unconditional repurchase (call) option that gives an entity the right to reclaim assets transferred subject to some restrictions. Provided that such an option results in the entity neither retaining nor transferring substantially all the risks and rewards of ownership, it precludes derecognition only to the extent of the amount subject to repurchase (assuming that the transferee cannot sell the assets). For example, if the carrying amount and proceeds from the transfer of loan assets are CU100,000 and any individual loan could be called back but the aggregate amount of loans that could be repurchased could not exceed CU10,000, CU90,000 of the loans would qualify for derecognition.
- (m) *Clean-up calls.* An entity, which may be a transferor, that services transferred assets may hold a clean-up call to purchase remaining transferred assets when the amount of outstanding assets falls to a specified level at which the cost of servicing those assets becomes burdensome in relation to the benefits of servicing. Provided that such a clean-up call results in the entity neither retaining nor transferring substantially all the risks and rewards of ownership and the transferee cannot sell the assets, it precludes derecognition only to the extent of the amount of the assets that is subject to the call option.

IAS 39

- (n) *Subordinated retained interests and credit guarantees.* An entity may provide the transferee with credit enhancement by subordinating some or all of its interest retained in the transferred asset. Alternatively, an entity may provide the transferee with credit enhancement in the form of a credit guarantee that could be unlimited or limited to a specified amount. If the entity retains substantially all the risks and rewards of ownership of the transferred asset, the asset continues to be recognised in its entirety. If the entity retains some, but not substantially all, of the risks and rewards of ownership and has retained control, derecognition is precluded to the extent of the amount of cash or other assets that the entity could be required to pay.
- (o) *Total return swaps.* An entity may sell a financial asset to a transferee and enter into a total return swap with the transferee, whereby all of the interest payment cash flows from the underlying asset are remitted to the entity in exchange for a fixed payment or variable rate payment and any increases or declines in the fair value of the underlying asset are absorbed by the entity. In such a case, derecognition of all of the asset is prohibited.
- (p) *Interest rate swaps.* An entity may transfer to a transferee a fixed rate financial asset and enter into an interest rate swap with the transferee to receive a fixed interest rate and pay a variable interest rate based on a notional amount that is equal to the principal amount of the transferred financial asset. The interest rate swap does not preclude derecognition of the transferred asset provided the payments on the swap are not conditional on payments being made on the transferred asset.
- (q) *Amortising interest rate swaps.* An entity may transfer to a transferee a fixed rate financial asset that is paid off over time, and enter into an amortising interest rate swap with the transferee to receive a fixed interest rate and pay a variable interest rate based on a notional amount. If the notional amount of the swap amortises so that it equals the principal amount of the transferred financial asset outstanding at any point in time, the swap would generally result in the entity retaining substantial prepayment risk, in which case the entity either continues to recognise all of the transferred asset or continues to recognise the transferred asset to the extent of its continuing involvement. Conversely, if the amortisation of the notional amount of the swap is not linked to the principal amount outstanding of the transferred asset, such a swap would not result in the entity retaining prepayment risk on the asset. Hence, it would not preclude derecognition of the transferred asset provided the payments on the swap are not conditional on interest payments being made on the transferred asset and the swap does not result in the entity retaining any other significant risks and rewards of ownership on the transferred asset.

IAS 39

AG52 This paragraph illustrates the application of the continuing involvement approach when the entity's continuing involvement is in a part of a financial asset.

Assume an entity has a portfolio of prepayable loans whose coupon and effective interest rate is 10 per cent and whose principal amount and amortised cost is CU10,000. It enters into a transaction in which, in return for a payment of CU9,115, the transferee obtains the right to CU9,000 of any collections of principal plus interest thereon at 9.5 per cent. The entity retains rights to CU1,000 of any collections of principal plus interest thereon at 10 per cent, plus the excess spread of 0.5 per cent on the remaining CU9,000 of principal. Collections from prepayments are allocated between the entity and the transferee proportionately in the ratio of 1:9, but any defaults are deducted from the entity's interest of CU1,000 until that interest is exhausted. The fair value of the loans at the date of the transaction is CU10,100 and the estimated fair value of the excess spread of 0.5 per cent is CU40.

The entity determines that it has transferred some significant risks and rewards of ownership (for example, significant prepayment risk) but has also retained some significant risks and rewards of ownership (because of its subordinated retained interest) and has retained control. It therefore applies the continuing involvement approach.

To apply this Standard, the entity analyses the transaction as (a) a retention of a fully proportionate retained interest of CU1,000, plus (b) the subordination of that retained interest to provide credit enhancement to the transferee for credit losses.

The entity calculates that CU9,090 (90 per cent × CU10,100) of the consideration received of CU9,115 represents the consideration for a fully proportionate 90 per cent share. The remainder of the consideration received (CU25) represents consideration received for subordinating its retained interest to provide credit enhancement to the transferee for credit losses. In addition, the excess spread of 0.5 per cent represents consideration received for the credit enhancement. Accordingly, the total consideration received for the credit enhancement is CU65 (CU25 + CU40).

The entity calculates the gain or loss on the sale of the 90 per cent share of cash flows. Assuming that separate fair values of the 90 per cent part transferred and the 10 per cent part retained are not available at the date of the transfer, the entity allocates the carrying amount of the asset in accordance with paragraph 28 as follows:

	<i>Estimated fair value</i>	<i>Percentage</i>	<i>Allocated carrying amount</i>
Portion transferred	9,090	90%	9,000
Portion retained	1,010	10%	1,000
<b>Total</b>	<b>10,100</b>		<b>10,000</b>

*continued...*

IAS 39

*...continued*

The entity computes its gain or loss on the sale of the 90 per cent share of the cash flows by deducting the allocated carrying amount of the portion transferred from the consideration received, ie CU90 (CU9,090 – CU9,000). The carrying amount of the portion retained by the entity is CU1,000.

In addition, the entity recognises the continuing involvement that results from the subordination of its retained interest for credit losses. Accordingly, it recognises an asset of CU1,000 (the maximum amount of the cash flows it would not receive under the subordination), and an associated liability of CU1,065 (which is the maximum amount of the cash flows it would not receive under the subordination, ie CU1,000 plus the fair value of the subordination of CU65).

The entity uses all of the above information to account for the transaction as follows:

	<i>Debit</i>	<i>Credit</i>
Original asset	–	9,000
Asset recognised for subordination or the residual interest	1,000	–
Asset for the consideration received in the form of excess spread	40	–
Profit or loss (gain on transfer)	–	90
Liability	–	1,065
Cash received	9,115	–
<b>Total</b>	<b>10,155</b>	<b>10,155</b>

Immediately following the transaction, the carrying amount of the asset is CU2,040 comprising CU1,000, representing the allocated cost of the portion retained, and CU1,040, representing the entity's additional continuing involvement from the subordination of its retained interest for credit losses (which includes the excess spread of CU40).

In subsequent periods, the entity recognises the consideration received for the credit enhancement (CU65) on a time proportion basis, accrues interest on the recognised asset using the effective interest method and recognises any credit impairment on the recognised assets. As an example of the latter, assume that in the following year there is a credit impairment loss on the underlying loans of CU300. The entity reduces its recognised asset by CU600 (CU300 relating to its retained interest and CU300 relating to the additional continuing involvement that arises from the subordination of its retained interest for credit losses), and reduces its recognised liability by CU300. The net result is a charge to profit or loss for credit impairment of CU300.

IAS 39

**Regular way purchase or sale of a financial asset  
(paragraph 38)**

- AG53 A regular way purchase or sale of financial assets is recognised using either trade date accounting or settlement date accounting as described in paragraphs AG55 and AG56. An entity shall apply the same method consistently for all purchases and sales of financial assets that are classified in the same way in accordance with IFRS 9. For this purpose assets that meet the definition of held for trading form a separate classification from assets designated as measured at fair value through profit or loss. In addition, investments in equity instruments accounted for using the option provided in paragraph 5.4.4 of IFRS 9 form a separate classification.
- AG54 A contract that requires or permits net settlement of the change in the value of the contract is not a regular way contract. Instead, such a contract is accounted for as a derivative in the period between the trade date and the settlement date.
- AG55 The trade date is the date that an entity commits itself to purchase or sell an asset. Trade date accounting refers to (a) the recognition of an asset to be received and the liability to pay for it on the trade date, and (b) derecognition of an asset that is sold, recognition of any gain or loss on disposal and the recognition of a receivable from the buyer for payment on the trade date. Generally, interest does not start to accrue on the asset and corresponding liability until the settlement date when title passes.
- AG56 The settlement date is the date that an asset is delivered to or by an entity. Settlement date accounting refers to (a) the recognition of an asset on the day it is received by the entity, and (b) the derecognition of an asset and recognition of any gain or loss on disposal on the day that it is delivered by the entity. When settlement date accounting is applied an entity accounts for any change in the fair value of the asset to be received during the period between the trade date and the settlement date in the same way as it accounts for the acquired asset. In other words, the change in value is not recognised for assets measured at amortised cost; it is recognised in profit or loss for assets classified as financial assets measured at fair value through profit or loss; and it is recognised in other comprehensive income for investments in equity instruments accounted for in accordance with paragraph 5.4.4 of IFRS 9.

**Derecognition of a financial liability (paragraphs 39–42)**

- AG57 A financial liability (or part of it) is extinguished when the debtor either:
- (a) discharges the liability (or part of it) by paying the creditor, normally with cash, other financial assets, goods or services; or
  - (b) is legally released from primary responsibility for the liability (or part of it) either by process of law or by the creditor. (If the debtor has given a guarantee this condition may still be met.)
- AG58 If an issuer of a debt instrument repurchases that instrument, the debt is extinguished even if the issuer is a market maker in that instrument or intends to resell it in the near term.

IAS 39

- AG59 Payment to a third party, including a trust (sometimes called 'in-substance defeasance'), does not, by itself, relieve the debtor of its primary obligation to the creditor, in the absence of legal release.
- AG60 If a debtor pays a third party to assume an obligation and notifies its creditor that the third party has assumed its debt obligation, the debtor does not derecognise the debt obligation unless the condition in paragraph AG57(b) is met. If the debtor pays a third party to assume an obligation and obtains a legal release from its creditor, the debtor has extinguished the debt. However, if the debtor agrees to make payments on the debt to the third party or direct to its original creditor, the debtor recognises a new debt obligation to the third party.
- AG61 Although legal release, whether judicially or by the creditor, results in derecognition of a liability, the entity may recognise a new liability if the derecognition criteria in paragraphs 15–37 are not met for the financial assets transferred. If those criteria are not met, the transferred assets are not derecognised, and the entity recognises a new liability relating to the transferred assets.
- AG62 For the purpose of paragraph 40, the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If an exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognised as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, any costs or fees incurred adjust the carrying amount of the liability and are amortised over the remaining term of the modified liability.
- AG63 In some cases, a creditor releases a debtor from its present obligation to make payments, but the debtor assumes a guarantee obligation to pay if the party assuming primary responsibility defaults. In this circumstance the debtor:
- (a) recognises a new financial liability based on the fair value of its obligation for the guarantee; and
  - (b) recognises a gain or loss based on the difference between (i) any proceeds paid and (ii) the carrying amount of the original financial liability less the fair value of the new financial liability.

## Measurement (paragraphs 43–65)

---

### Initial measurement of financial liabilities (paragraph 43)

- AG64 The fair value of a financial liability on initial recognition is normally the transaction price (ie the fair value of the consideration received, see also paragraph AG76). However, if part of the consideration given or received is for something other than the financial liability, the fair value of the financial liability is estimated, using a valuation technique (see paragraphs AG74–AG79).
- AG65– [Deleted]  
 AG68

IAS 39

### **Fair value measurement considerations (paragraphs 48–49)**

- AG69 Underlying the definition of fair value is a presumption that an entity is a going concern without any intention or need to liquidate, to curtail materially the scale of its operations or to undertake a transaction on adverse terms. Fair value is not, therefore, the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale. However, fair value reflects the credit quality of the instrument.
- AG70 This Standard uses the terms ‘bid price’ and ‘asking price’ (sometimes referred to as ‘current offer price’) in the context of quoted market prices, and the term ‘the bid-ask spread’ to include only transaction costs. Other adjustments to arrive at fair value (eg for counterparty credit risk) are not included in the term ‘bid-ask spread’.

### **Active market: quoted price**

- AG71 A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm’s length basis. Fair value is defined in terms of a price agreed by a willing buyer and a willing seller in an arm’s length transaction. The objective of determining fair value for a financial instrument that is traded in an active market is to arrive at the price at which a transaction would occur at the end of the reporting period in that instrument (ie without modifying or repackaging the instrument) in the most advantageous active market to which the entity has immediate access. However, the entity adjusts the price in the more advantageous market to reflect any differences in counterparty credit risk between instruments traded in that market and the one being valued. The existence of published price quotations in an active market is the best evidence of fair value and when they exist they are used to measure the financial asset or financial liability.
- AG72 The appropriate quoted market price for an asset held or liability to be issued is usually the current bid price and, for an asset to be acquired or liability held, the asking price. When an entity has assets and liabilities with offsetting market risks, it may use mid-market prices as a basis for establishing fair values for the offsetting risk positions and apply the bid or asking price to the net open position as appropriate. When current bid and asking prices are unavailable, the price of the most recent transaction provides evidence of the current fair value as long as there has not been a significant change in economic circumstances since the time of the transaction. If conditions have changed since the time of the transaction (eg a change in the risk-free interest rate following the most recent price quote for a corporate bond), the fair value reflects the change in conditions by reference to current prices or rates for similar financial instruments, as appropriate. Similarly, if the entity can demonstrate that the last transaction price is not fair value (eg because it reflected the amount that an entity would receive or pay in a forced transaction, involuntary liquidation or distress sale), that price is adjusted. The fair value of a portfolio of financial instruments is the product of the number of units of the instrument and its quoted market price. If a published price



IAS 39

quotation in an active market does not exist for a financial instrument in its entirety, but active markets exist for its component parts, fair value is determined on the basis of the relevant market prices for the component parts.

- AG73 If a rate (rather than a price) is quoted in an active market, the entity uses that market-quoted rate as an input into a valuation technique to determine fair value. If the market-quoted rate does not include credit risk or other factors that market participants would include in valuing the instrument, the entity adjusts for those factors.

**No active market: valuation technique**

- AG74 If the market for a financial instrument is not active, an entity establishes fair value by using a valuation technique. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, reference to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models. If there is a valuation technique commonly used by market participants to price the instrument and that technique has been demonstrated to provide reliable estimates of prices obtained in actual market transactions, the entity uses that technique.
- AG75 The objective of using a valuation technique is to establish what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations. Fair value is estimated on the basis of the results of a valuation technique that makes maximum use of market inputs, and relies as little as possible on entity-specific inputs. A valuation technique would be expected to arrive at a realistic estimate of the fair value if (a) it reasonably reflects how the market could be expected to price the instrument and (b) the inputs to the valuation technique reasonably represent market expectations and measures of the risk-return factors inherent in the financial instrument.
- AG76 Therefore, a valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments. Periodically, an entity calibrates the valuation technique and tests it for validity using prices from any observable current market transactions in the same instrument (ie without modification or repackaging) or based on any available observable market data. An entity obtains market data consistently in the same market where the instrument was originated or purchased. The best evidence of the fair value of a financial instrument at initial recognition is the transaction price (ie the fair value of the consideration given or received) unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument (ie without modification or repackaging) or based on a valuation technique whose variables include only data from observable markets.
- AG76A The subsequent measurement of the financial asset or financial liability and the subsequent recognition of gains and losses shall be consistent with the requirements of this Standard or IFRS 9 as appropriate. The application of paragraph AG76 may result in no gain or loss being recognised on the initial

A928

© IASCF

IAS 39

recognition of a financial asset or financial liability. In such a case, IAS 39 requires that a gain or loss shall be recognised after initial recognition only to the extent that it arises from a change in a factor (including time) that market participants would consider in setting a price.

AG77 The initial acquisition or origination of a financial asset or incurrence of a financial liability is a market transaction that provides a foundation for estimating the fair value of the financial instrument. In particular, if the financial instrument is a debt instrument (such as a loan), its fair value can be determined by reference to the market conditions that existed at its acquisition or origination date and current market conditions or interest rates currently charged by the entity or by others for similar debt instruments (ie similar remaining maturity, cash flow pattern, currency, credit risk, collateral and interest basis). Alternatively, provided there is no change in the credit risk of the debtor and applicable credit spreads after the origination of the debt instrument, an estimate of the current market interest rate may be derived by using a benchmark interest rate reflecting a better credit quality than the underlying debt instrument, holding the credit spread constant, and adjusting for the change in the benchmark interest rate from the origination date. If conditions have changed since the most recent market transaction, the corresponding change in the fair value of the financial instrument being valued is determined by reference to current prices or rates for similar financial instruments, adjusted as appropriate, for any differences from the instrument being valued.

AG78 The same information may not be available at each measurement date. For example, at the date that an entity makes a loan or acquires a debt instrument that is not actively traded, the entity has a transaction price that is also a market price. However, no new transaction information may be available at the next measurement date and, although the entity can determine the general level of market interest rates, it may not know what level of credit or other risk market participants would consider in pricing the instrument on that date. An entity may not have information from recent transactions to determine the appropriate credit spread over the basic interest rate to use in determining a discount rate for a present value computation. It would be reasonable to assume, in the absence of evidence to the contrary, that no changes have taken place in the spread that existed at the date the loan was made. However, the entity would be expected to make reasonable efforts to determine whether there is evidence that there has been a change in such factors. When evidence of a change exists, the entity would consider the effects of the change in determining the fair value of the financial instrument.

AG79 In applying discounted cash flow analysis, an entity uses one or more discount rates equal to the prevailing rates of return for financial instruments having substantially the same terms and characteristics, including the credit quality of the instrument, the remaining term over which the contractual interest rate is fixed, the remaining term to repayment of the principal and the currency in which payments are to be made. Short-term receivables and payables with no stated interest rate may be measured at the original invoice amount if the effect of discounting is immaterial.

IAS 39

**No active market: derivatives on unquoted equity instruments**

- AG80 The fair value of derivatives that are linked to and must be settled by delivery of unquoted equity instrument (see paragraph 47(a)) is reliably measurable if (a) the variability in the range of reasonable fair value estimates is not significant for that instrument or (b) the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair value.
- AG81 There are many situations in which the variability in the range of reasonable fair value estimates of derivatives that are linked to and must be settled by delivery of unquoted equity instruments (see paragraph 47(a)) is likely not to be significant. Normally it is possible to estimate the fair value of such derivatives that an entity has acquired from an outside party. However, if the range of reasonable fair value estimates is significant and the probabilities of the various estimates cannot be reasonably assessed, an entity is precluded from measuring the instrument at fair value.

**Inputs to valuation techniques**

- AG82 An appropriate technique for estimating the fair value of a particular financial instrument would incorporate observable market data about the market conditions and other factors that are likely to affect the instrument's fair value. The fair value of a financial instrument will be based on one or more of the following factors (and perhaps others).
- (a) *The time value of money (ie interest at the basic or risk-free rate).* Basic interest rates can usually be derived from observable government bond prices and are often quoted in financial publications. These rates typically vary with the expected dates of the projected cash flows along a yield curve of interest rates for different time horizons. For practical reasons, an entity may use a well-accepted and readily observable general rate, such as LIBOR or a swap rate, as the benchmark rate. (Because a rate such as LIBOR is not the risk-free interest rate, the credit risk adjustment appropriate to the particular financial instrument is determined on the basis of its credit risk in relation to the credit risk in this benchmark rate.) In some countries, the central government's bonds may carry a significant credit risk and may not provide a stable benchmark basic interest rate for instruments denominated in that currency. Some entities in these countries may have a better credit standing and a lower borrowing rate than the central government. In such a case, basic interest rates may be more appropriately determined by reference to interest rates for the highest rated corporate bonds issued in the currency of that jurisdiction.
  - (b) *Credit risk.* The effect on fair value of credit risk (ie the premium over the basic interest rate for credit risk) may be derived from observable market prices for traded instruments of different credit quality or from observable interest rates charged by lenders for loans of various credit ratings.
  - (c) *Foreign currency exchange prices.* Active currency exchange markets exist for most major currencies, and prices are quoted daily in financial publications.
  - (d) *Commodity prices.* There are observable market prices for many commodities.

A930

© IASCF

IAS 39

- (e) *Equity prices.* Prices (and indexes of prices) of traded equity instruments are readily observable in some markets. Present value based techniques may be used to estimate the current market price of equity instruments for which there are no observable prices.
- (f) *Volatility (ie magnitude of future changes in price of the financial instrument or other item).* Measures of the volatility of actively traded items can normally be reasonably estimated on the basis of historical market data or by using volatilities implied in current market prices.
- (g) *Prepayment risk and surrender risk.* Expected prepayment patterns for financial assets and expected surrender patterns for financial liabilities can be estimated on the basis of historical data. (The fair value of a financial liability that can be surrendered by the counterparty cannot be less than the present value of the surrender amount—see paragraph 49.)
- (h) *Servicing costs for a financial asset or a financial liability.* Costs of servicing can be estimated using comparisons with current fees charged by other market participants. If the costs of servicing a financial asset or financial liability are significant and other market participants would face comparable costs, the issuer would consider them in determining the fair value of that financial asset or financial liability. It is likely that the fair value at inception of a contractual right to future fees equals the origination costs paid for them, unless future fees and related costs are out of line with market comparables.

#### **Gains and losses (paragraphs 55–57)**

- AG83 An entity applies IAS 21 to financial liabilities that are monetary items in accordance with IAS 21 and denominated in a foreign currency. Under IAS 21, any foreign exchange gains and losses on monetary liabilities are recognised in profit or loss. An exception is a monetary item that is designated as a hedging instrument in either a cash flow hedge (see paragraphs 95–101) or a hedge of a net investment (see paragraph 102). If there is a hedging relationship between a non-derivative monetary asset and a non-derivative monetary liability, changes in the foreign currency component of those financial instruments are recognised in profit or loss.

#### **Impairment and uncollectibility of financial assets measured at amortised cost (paragraphs 58–65)**

- AG84 Impairment of a financial asset measured at amortised cost is measured using the financial instrument's original effective interest rate because discounting at the current market rate of interest would, in effect, impose fair value measurement on financial assets that are otherwise measured at amortised cost. If the terms of a financial asset measured at amortised cost are renegotiated or otherwise modified because of financial difficulties of the borrower or issuer, impairment is measured using the original effective interest rate before the modification of terms. Cash flows relating to short-term receivables are not discounted if the effect of discounting is immaterial. If a financial asset measured at amortised cost has a variable interest rate, the discount rate for measuring any impairment loss under paragraph 63 is the current effective interest rate(s) determined under

IAS 39

the contract. As a practical expedient, a creditor may measure impairment of a financial asset measured at amortised cost on the basis of an instrument's fair value using an observable market price. The calculation of the present value of the estimated future cash flows of a collateralised financial asset reflects the cash flows that may result from foreclosure less costs for obtaining and selling the collateral, whether or not foreclosure is probable.

AG85 The process for estimating impairment considers all credit exposures, not only those of low credit quality. For example, if an entity uses an internal credit grading system it considers all credit grades, not only those reflecting a severe credit deterioration.

AG86 The process for estimating the amount of an impairment loss may result either in a single amount or in a range of possible amounts. In the latter case, the entity recognises an impairment loss equal to the best estimate within the range<sup>\*</sup> taking into account all relevant information available before the financial statements are issued about conditions existing at the end of the reporting period.

AG87 For the purpose of a collective evaluation of impairment, financial assets are grouped on the basis of similar credit risk characteristics that are indicative of the debtors' ability to pay all amounts due according to the contractual terms (for example, on the basis of a credit risk evaluation or grading process that considers asset type, industry, geographical location, collateral type, past-due status and other relevant factors). The characteristics chosen are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated. However, loss probabilities and other loss statistics differ at a group level between (a) assets that have been individually evaluated for impairment and found not to be impaired and (b) assets that have not been individually evaluated for impairment, with the result that a different amount of impairment may be required. If an entity does not have a group of assets with similar risk characteristics, it does not make the additional assessment.

AG88 Impairment losses recognised on a group basis represent an interim step pending the identification of impairment losses on individual assets in the group of financial assets that are collectively assessed for impairment. As soon as information is available that specifically identifies losses on individually impaired assets in a group, those assets are removed from the group.

AG89 Future cash flows in a group of financial assets that are collectively evaluated for impairment are estimated on the basis of historical loss experience for assets with credit risk characteristics similar to those in the group. Entities that have no entity-specific loss experience or insufficient experience, use peer group experience for comparable groups of financial assets. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently. Estimates of changes in future cash flows reflect and are directionally consistent with changes in related observable data from period to period (such as changes in unemployment rates, property prices, commodity

---

<sup>\*</sup> IAS 37, paragraph 39 contains guidance on how to determine the best estimate in a range of possible outcomes.

IAS 39

prices, payment status or other factors that are indicative of incurred losses in the group and their magnitude). The methodology and assumptions used for estimating future cash flows are reviewed regularly to reduce any differences between loss estimates and actual loss experience.

AG90 As an example of applying paragraph AG89, an entity may determine, on the basis of historical experience, that one of the main causes of default on credit card loans is the death of the borrower. The entity may observe that the death rate is unchanged from one year to the next. Nevertheless, some of the borrowers in the entity's group of credit card loans may have died in that year, indicating that an impairment loss has occurred on those loans, even if, at the year-end, the entity is not yet aware which specific borrowers have died. It would be appropriate for an impairment loss to be recognised for these 'incurred but not reported' losses. However, it would not be appropriate to recognise an impairment loss for deaths that are expected to occur in a future period, because the necessary loss event (the death of the borrower) has not yet occurred.

AG91 When using historical loss rates in estimating future cash flows, it is important that information about historical loss rates is applied to groups that are defined in a manner consistent with the groups for which the historical loss rates were observed. Therefore, the method used should enable each group to be associated with information about past loss experience in groups of assets with similar credit risk characteristics and relevant observable data that reflect current conditions.

AG92 Formula-based approaches or statistical methods may be used to determine impairment losses in a group of financial assets (eg for smaller balance loans) as long as they are consistent with the requirements in paragraphs 63–65 and AG87–AG91. Any model used would incorporate the effect of the time value of money, consider the cash flows for all of the remaining life of an asset (not only the next year), consider the age of the loans within the portfolio and not give rise to an impairment loss on initial recognition of a financial asset.

#### **Interest income after impairment recognition**

AG93 Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is thereafter recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

### **Hedging (paragraphs 71–102)**

---

#### **Hedging instruments (paragraphs 72–77)**

##### **Qualifying instruments (paragraphs 72 and 73)**

AG94 The potential loss on an option that an entity writes could be significantly greater than the potential gain in value of a related hedged item. In other words, a written option is not effective in reducing the profit or loss exposure of a hedged item. Therefore, a written option does not qualify as a hedging instrument unless it is designated as an offset to a purchased option, including one that is embedded

IAS 39

in another financial instrument (for example, a written call option used to hedge a callable liability). In contrast, a purchased option has potential gains equal to or greater than losses and therefore has the potential to reduce profit or loss exposure from changes in fair values or cash flows. Accordingly, it can qualify as a hedging instrument.

AG95 A financial asset measured at amortised cost may be designated as a hedging instrument in a hedge of foreign currency risk.

AG96 A derivative that is linked to and must be settled by delivery of unquoted equity instruments and is not carried at fair value because its fair value cannot be reliably measured (see paragraph 47(a)) cannot be designated as a hedging instrument.

AG97 An entity's own equity instruments are not financial assets or financial liabilities of the entity and therefore cannot be designated as hedging instruments.

### **Hedged items (paragraphs 78–84)**

#### **Qualifying items (paragraphs 78–80)**

AG98 A firm commitment to acquire a business in a business combination cannot be a hedged item, except for foreign exchange risk, because the other risks being hedged cannot be specifically identified and measured. These other risks are general business risks.

AG99 An equity method investment cannot be a hedged item in a fair value hedge because the equity method recognises in profit or loss the investor's share of the associate's profit or loss, rather than changes in the investment's fair value. For a similar reason, an investment in a consolidated subsidiary cannot be a hedged item in a fair value hedge because consolidation recognises in profit or loss the subsidiary's profit or loss, rather than changes in the investment's fair value. A hedge of a net investment in a foreign operation is different because it is a hedge of the foreign currency exposure, not a fair value hedge of the change in the value of the investment.

AG99A Paragraph 80 states that in consolidated financial statements the foreign currency risk of a highly probable forecast intragroup transaction may qualify as a hedged item in a cash flow hedge, provided the transaction is denominated in a currency other than the functional currency of the entity entering into that transaction and the foreign currency risk will affect consolidated profit or loss. For this purpose an entity can be a parent, subsidiary, associate, joint venture or branch. If the foreign currency risk of a forecast intragroup transaction does not affect consolidated profit or loss, the intragroup transaction cannot qualify as a hedged item. This is usually the case for royalty payments, interest payments or management charges between members of the same group unless there is a related external transaction. However, when the foreign currency risk of a forecast intragroup transaction will affect consolidated profit or loss, the intragroup transaction can qualify as a hedged item. An example is forecast sales or purchases of inventories between members of the same group if there is an onward sale of the inventory to a party external to the group. Similarly, a forecast intragroup sale of plant and equipment from the group entity that manufactured it to a group entity that will use the plant and equipment in its operations may

A934

© IASCF

IAS 39

affect consolidated profit or loss. This could occur, for example, because the plant and equipment will be depreciated by the purchasing entity and the amount initially recognised for the plant and equipment may change if the forecast intragroup transaction is denominated in a currency other than the functional currency of the purchasing entity.

AG99B If a hedge of a forecast intragroup transaction qualifies for hedge accounting, any gain or loss that is recognised in other comprehensive income in accordance with paragraph 95(a) shall be reclassified from equity to profit or loss as a reclassification adjustment in the same period or periods during which the foreign currency risk of the hedged transaction affects consolidated profit or loss.

AG99BA An entity can designate all changes in the cash flows or fair value of a hedged item in a hedging relationship. An entity can also designate only changes in the cash flows or fair value of a hedged item above or below a specified price or other variable (a one-sided risk). The intrinsic value of a purchased option hedging instrument (assuming that it has the same principal terms as the designated risk), but not its time value, reflects a one-sided risk in a hedged item. For example, an entity can designate the variability of future cash flow outcomes resulting from a price increase of a forecast commodity purchase. In such a situation, only cash flow losses that result from an increase in the price above the specified level are designated. The hedged risk does not include the time value of a purchased option because the time value is not a component of the forecast transaction that affects profit or loss (paragraph 86(b)).

#### **Designation of financial items as hedged items (paragraphs 81 and 81A)**

AG99C If a portion of the cash flows of a financial asset or financial liability is designated as the hedged item, that designated portion must be less than the total cash flows of the asset or liability. For example, in the case of a liability whose effective interest rate is below LIBOR, an entity cannot designate (a) a portion of the liability equal to the principal amount plus interest at LIBOR and (b) a negative residual portion. However, the entity may designate all of the cash flows of the entire financial asset or financial liability as the hedged item and hedge them for only one particular risk (eg only for changes that are attributable to changes in LIBOR). For example, in the case of a financial liability whose effective interest rate is 100 basis points below LIBOR, an entity can designate as the hedged item the entire liability (ie principal plus interest at LIBOR minus 100 basis points) and hedge the change in the fair value or cash flows of that entire liability that is attributable to changes in LIBOR. The entity may also choose a hedge ratio of other than one to one in order to improve the effectiveness of the hedge as described in paragraph AG100.

AG99D In addition, if a fixed rate financial instrument is hedged some time after its origination and interest rates have changed in the meantime, the entity can designate a portion equal to a benchmark rate that is higher than the contractual rate paid on the item. The entity can do so provided that the benchmark rate is less than the effective interest rate calculated on the assumption that the entity had purchased the instrument on the day it first designates the hedged item. For example, assume an entity originates a fixed rate financial asset of CU100 that has an effective interest rate of 6 per cent at a time when LIBOR is 4 per cent.



IAS 39

It begins to hedge that asset some time later when LIBOR has increased to 8 per cent and the fair value of the asset has decreased to CU90. The entity calculates that if it had purchased the asset on the date it first designates it as the hedged item for its then fair value of CU90, the effective yield would have been 9.5 per cent. Because LIBOR is less than this effective yield, the entity can designate a LIBOR portion of 8 per cent that consists partly of the contractual interest cash flows and partly of the difference between the current fair value (ie CU90) and the amount repayable on maturity (ie CU100).

AG99E Paragraph 81 permits an entity to designate something other than the entire fair value change or cash flow variability of a financial instrument. For example:

- (a) all of the cash flows of a financial instrument may be designated for cash flow or fair value changes attributable to some (but not all) risks; or
- (b) some (but not all) of the cash flows of a financial instrument may be designated for cash flow or fair value changes attributable to all or only some risks (ie a 'portion' of the cash flows of the financial instrument may be designated for changes attributable to all or only some risks).

AG99F To be eligible for hedge accounting, the designated risks and portions must be separately identifiable components of the financial instrument, and changes in the cash flows or fair value of the entire financial instrument arising from changes in the designated risks and portions must be reliably measurable. For example:

- (a) for a fixed rate financial instrument hedged for changes in fair value attributable to changes in a risk-free or benchmark interest rate, the risk-free or benchmark rate is normally regarded as both a separately identifiable component of the financial instrument and reliably measurable.
- (b) inflation is not separately identifiable and reliably measurable and cannot be designated as a risk or a portion of a financial instrument unless the requirements in (c) are met.
- (c) a contractually specified inflation portion of the cash flows of a recognised inflation-linked bond (assuming there is no requirement to account for an embedded derivative separately) is separately identifiable and reliably measurable as long as other cash flows of the instrument are not affected by the inflation portion.

**Designation of non-financial items as hedged items (paragraph 82)**

AG100 Changes in the price of an ingredient or component of a non-financial asset or non-financial liability generally do not have a predictable, separately measurable effect on the price of the item that is comparable to the effect of, say, a change in market interest rates on the price of a bond. Thus, a non-financial asset or non-financial liability is a hedged item only in its entirety or for foreign exchange risk. If there is a difference between the terms of the hedging instrument and the hedged item (such as for a hedge of the forecast purchase of Brazilian coffee using a forward contract to purchase Colombian coffee on otherwise similar terms), the hedging relationship nonetheless can qualify as a hedge relationship provided all the conditions in paragraph 88 are met, including that the hedge is expected to

IAS 39

be highly effective. For this purpose, the amount of the hedging instrument may be greater or less than that of the hedged item if this improves the effectiveness of the hedging relationship. For example, a regression analysis could be performed to establish a statistical relationship between the hedged item (eg a transaction in Brazilian coffee) and the hedging instrument (eg a transaction in Colombian coffee). If there is a valid statistical relationship between the two variables (ie between the unit prices of Brazilian coffee and Colombian coffee), the slope of the regression line can be used to establish the hedge ratio that will maximise expected effectiveness. For example, if the slope of the regression line is 1.02, a hedge ratio based on 0.98 quantities of hedged items to 1.00 quantities of the hedging instrument maximises expected effectiveness. However, the hedging relationship may result in ineffectiveness that is recognised in profit or loss during the term of the hedging relationship.

**Designation of groups of items as hedged items  
 (paragraphs 83 and 84)**

- AG101 A hedge of an overall net position (eg the net of all fixed rate assets and fixed rate liabilities with similar maturities), rather than of a specific hedged item, does not qualify for hedge accounting. However, almost the same effect on profit or loss of hedge accounting for this type of hedging relationship can be achieved by designating as the hedged item part of the underlying items. For example, if a bank has CU100 of assets and CU90 of liabilities with risks and terms of a similar nature and hedges the net CU10 exposure, it can designate as the hedged item CU10 of those assets. This designation can be used if such assets and liabilities are fixed rate instruments, in which case it is a fair value hedge, or if they are variable rate instruments, in which case it is a cash flow hedge. Similarly, if an entity has a firm commitment to make a purchase in a foreign currency of CU100 and a firm commitment to make a sale in the foreign currency of CU90, it can hedge the net amount of CU10 by acquiring a derivative and designating it as a hedging instrument associated with CU10 of the firm purchase commitment of CU100.

**Hedge accounting (paragraphs 85–102)**

- AG102 An example of a fair value hedge is a hedge of exposure to changes in the fair value of a fixed rate debt instrument as a result of changes in interest rates. Such a hedge could be entered into by the issuer or by the holder.
- AG103 An example of a cash flow hedge is the use of a swap to change floating rate debt to fixed rate debt (ie a hedge of a future transaction where the future cash flows being hedged are the future interest payments).
- AG104 A hedge of a firm commitment (eg a hedge of the change in fuel price relating to an unrecognised contractual commitment by an electric utility to purchase fuel at a fixed price) is a hedge of an exposure to a change in fair value. Accordingly, such a hedge is a fair value hedge. However, under paragraph 87 a hedge of the foreign currency risk of a firm commitment could alternatively be accounted for as a cash flow hedge.

IAS 39

### **Assessing hedge effectiveness**

AG105 A hedge is regarded as highly effective only if both of the following conditions are met:

- (a) At the inception of the hedge and in subsequent periods, the hedge is expected to be highly effective in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period for which the hedge is designated. Such an expectation can be demonstrated in various ways, including a comparison of past changes in the fair value or cash flows of the hedged item that are attributable to the hedged risk with past changes in the fair value or cash flows of the hedging instrument, or by demonstrating a high statistical correlation between the fair value or cash flows of the hedged item and those of the hedging instrument. The entity may choose a hedge ratio of other than one to one in order to improve the effectiveness of the hedge as described in paragraph AG100.
- (b) The actual results of the hedge are within a range of 80–125 per cent. For example, if actual results are such that the loss on the hedging instrument is CU120 and the gain on the cash instrument is CU100, offset can be measured by 120/100, which is 120 per cent, or by 100/120, which is 83 per cent. In this example, assuming the hedge meets the condition in (a), the entity would conclude that the hedge has been highly effective.

AG106 Effectiveness is assessed, at a minimum, at the time an entity prepares its annual or interim financial statements.

AG107 This Standard does not specify a single method for assessing hedge effectiveness. The method an entity adopts for assessing hedge effectiveness depends on its risk management strategy. For example, if the entity's risk management strategy is to adjust the amount of the hedging instrument periodically to reflect changes in the hedged position, the entity needs to demonstrate that the hedge is expected to be highly effective only for the period until the amount of the hedging instrument is next adjusted. In some cases, an entity adopts different methods for different types of hedges. An entity's documentation of its hedging strategy includes its procedures for assessing effectiveness. Those procedures state whether the assessment includes all of the gain or loss on a hedging instrument or whether the instrument's time value is excluded.

AG107A If an entity hedges less than 100 per cent of the exposure on an item, such as 85 per cent, it shall designate the hedged item as being 85 per cent of the exposure and shall measure ineffectiveness based on the change in that designated 85 per cent exposure. However, when hedging the designated 85 per cent exposure, the entity may use a hedge ratio of other than one to one if that improves the expected effectiveness of the hedge, as explained in paragraph AG100.

AG108 If the principal terms of the hedging instrument and of the hedged asset, liability, firm commitment or highly probable forecast transaction are the same, the changes in fair value and cash flows attributable to the risk being hedged may be likely to offset each other fully, both when the hedge is entered into and afterwards. For example, an interest rate swap is likely to be an effective hedge if the notional and principal amounts, term, repricing dates, dates of interest and

IAS 39

principal receipts and payments, and basis for measuring interest rates are the same for the hedging instrument and the hedged item. In addition, a hedge of a highly probable forecast purchase of a commodity with a forward contract is likely to be highly effective if:

- (a) the forward contract is for the purchase of the same quantity of the same commodity at the same time and location as the hedged forecast purchase;
- (b) the fair value of the forward contract at inception is zero; and
- (c) either the change in the discount or premium on the forward contract is excluded from the assessment of effectiveness and recognised in profit or loss or the change in expected cash flows on the highly probable forecast transaction is based on the forward price for the commodity.

AG109 Sometimes the hedging instrument offsets only part of the hedged risk. For example, a hedge would not be fully effective if the hedging instrument and hedged item are denominated in different currencies that do not move in tandem. Also, a hedge of interest rate risk using a derivative would not be fully effective if part of the change in the fair value of the derivative is attributable to the counterparty's credit risk.

AG110 To qualify for hedge accounting, the hedge must relate to a specific identified and designated risk, and not merely to the entity's general business risks, and must ultimately affect the entity's profit or loss. A hedge of the risk of obsolescence of a physical asset or the risk of expropriation of property by a government is not eligible for hedge accounting; effectiveness cannot be measured because those risks are not measurable reliably.

AG110A Paragraph 74(a) permits an entity to separate the intrinsic value and time value of an option contract and designate as the hedging instrument only the change in the intrinsic value of the option contract. Such a designation may result in a hedging relationship that is perfectly effective in achieving offsetting changes in cash flows attributable to a hedged one-sided risk of a forecast transaction, if the principal terms of the forecast transaction and hedging instrument are the same.

AG110B If an entity designates a purchased option in its entirety as the hedging instrument of a one-sided risk arising from a forecast transaction, the hedging relationship will not be perfectly effective. This is because the premium paid for the option includes time value and, as stated in paragraph AG99BA, a designated one-sided risk does not include the time value of an option. Therefore, in this situation, there will be no offset between the cash flows relating to the time value of the option premium paid and the designated hedged risk.

AG111 In the case of interest rate risk, hedge effectiveness may be assessed by preparing a maturity schedule for financial assets and financial liabilities that shows the net interest rate exposure for each time period, provided that the net exposure is associated with a specific asset or liability (or a specific group of assets or liabilities or a specific portion of them) giving rise to the net exposure, and hedge effectiveness is assessed against that asset or liability.

IAS 39

- AG112 In assessing the effectiveness of a hedge, an entity generally considers the time value of money. The fixed interest rate on a hedged item need not exactly match the fixed interest rate on a swap designated as a fair value hedge. Nor does the variable interest rate on an interest-bearing asset or liability need to be the same as the variable interest rate on a swap designated as a cash flow hedge. A swap's fair value derives from its net settlements. The fixed and variable rates on a swap can be changed without affecting the net settlement if both are changed by the same amount.
- AG113 If an entity does not meet hedge effectiveness criteria, the entity discontinues hedge accounting from the last date on which compliance with hedge effectiveness was demonstrated. However, if the entity identifies the event or change in circumstances that caused the hedging relationship to fail the effectiveness criteria, and demonstrates that the hedge was effective before the event or change in circumstances occurred, the entity discontinues hedge accounting from the date of the event or change in circumstances.

**Fair value hedge accounting for a portfolio hedge of interest rate risk**

- AG114 For a fair value hedge of interest rate risk associated with a portfolio of financial assets or financial liabilities, an entity would meet the requirements of this Standard if it complies with the procedures set out in (a)–(f) and paragraphs AG115–AG132 below.
- (a) As part of its risk management process the entity identifies a portfolio of items whose interest rate risk it wishes to hedge. The portfolio may comprise only assets, only liabilities or both assets and liabilities. The entity may identify two or more portfolios, in which case it applies the guidance below to each portfolio separately.
  - (b) The entity analyses the portfolio into repricing time periods based on expected, rather than contractual, repricing dates. The analysis into repricing time periods may be performed in various ways including scheduling cash flows into the periods in which they are expected to occur, or scheduling notional principal amounts into all periods until repricing is expected to occur.
  - (c) On the basis of this analysis, the entity decides the amount it wishes to hedge. The entity designates as the hedged item an amount of assets or liabilities (but not a net amount) from the identified portfolio equal to the amount it wishes to designate as being hedged. This amount also determines the percentage measure that is used for testing effectiveness in accordance with paragraph AG126(b).
  - (d) The entity designates the interest rate risk it is hedging. This risk could be a portion of the interest rate risk in each of the items in the hedged position, such as a benchmark interest rate (eg LIBOR).
  - (e) The entity designates one or more hedging instruments for each repricing time period.
  - (f) Using the designations made in (c)–(e) above, the entity assesses at inception and in subsequent periods, whether the hedge is expected to be highly effective during the period for which the hedge is designated.

IAS 39

- (g) Periodically, the entity measures the change in the fair value of the hedged item (as designated in (c)) that is attributable to the hedged risk (as designated in (d)), on the basis of the expected repricing dates determined in (b). Provided that the hedge is determined actually to have been highly effective when assessed using the entity's documented method of assessing effectiveness, the entity recognises the change in fair value of the hedged item as a gain or loss in profit or loss and in one of two line items in the statement of financial position as described in paragraph 89A. The change in fair value need not be allocated to individual assets or liabilities.
  - (h) The entity measures the change in fair value of the hedging instrument(s) (as designated in (e)) and recognises it as a gain or loss in profit or loss. The fair value of the hedging instrument(s) is recognised as an asset or liability in the statement of financial position.
  - (i) Any ineffectiveness\* will be recognised in profit or loss as the difference between the change in fair value referred to in (g) and that referred to in (h).
- AG115 This approach is described in more detail below. The approach shall be applied only to a fair value hedge of the interest rate risk associated with a portfolio of financial assets or financial liabilities.
- AG116 The portfolio identified in paragraph AG114(a) could contain assets and liabilities. Alternatively, it could be a portfolio containing only assets, or only liabilities. The portfolio is used to determine the amount of the assets or liabilities the entity wishes to hedge. However, the portfolio is not itself designated as the hedged item.
- AG117 In applying paragraph AG114(b), the entity determines the expected repricing date of an item as the earlier of the dates when that item is expected to mature or to reprice to market rates. The expected repricing dates are estimated at the inception of the hedge and throughout the term of the hedge, based on historical experience and other available information, including information and expectations regarding prepayment rates, interest rates and the interaction between them. Entities that have no entity-specific experience or insufficient experience use peer group experience for comparable financial instruments. These estimates are reviewed periodically and updated in the light of experience. In the case of a fixed rate item that is prepayable, the expected repricing date is the date on which the item is expected to prepay unless it reprices to market rates on an earlier date. For a group of similar items, the analysis into time periods based on expected repricing dates may take the form of allocating a percentage of the group, rather than individual items, to each time period. An entity may apply other methodologies for such allocation purposes. For example, it may use a prepayment rate multiplier for allocating amortising loans to time periods based on expected repricing dates. However, the methodology for such an allocation shall be in accordance with the entity's risk management procedures and objectives.

---

\* The same materiality considerations apply in this context as apply throughout IFRSs.

IAS 39

AG118 As an example of the designation set out in paragraph AG114(c), if in a particular repricing time period an entity estimates that it has fixed rate assets of CU100 and fixed rate liabilities of CU80 and decides to hedge all of the net position of CU20, it designates as the hedged item assets in the amount of CU20 (a portion of the assets).<sup>\*</sup> The designation is expressed as an 'amount of a currency' (eg an amount of dollars, euro, pounds or rand) rather than as individual assets. It follows that all of the assets (or liabilities) from which the hedged amount is drawn—ie all of the CU100 of assets in the above example—must be:

- (a) items whose fair value changes in response to changes in the interest rate being hedged; and
- (b) items that could have qualified for fair value hedge accounting if they had been designated as hedged individually. In particular, because the Standard<sup>†</sup> specifies that the fair value of a financial liability with a demand feature (such as demand deposits and some types of time deposits) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid, such an item cannot qualify for fair value hedge accounting for any time period beyond the shortest period in which the holder can demand payment. In the above example, the hedged position is an amount of assets. Hence, such liabilities are not a part of the designated hedged item, but are used by the entity to determine the amount of the asset that is designated as being hedged. If the position the entity wished to hedge was an amount of liabilities, the amount representing the designated hedged item must be drawn from fixed rate liabilities other than liabilities that the entity can be required to repay in an earlier time period, and the percentage measure used for assessing hedge effectiveness in accordance with paragraph AG126(b) would be calculated as a percentage of these other liabilities. For example, assume that an entity estimates that in a particular repricing time period it has fixed rate liabilities of CU100, comprising CU40 of demand deposits and CU60 of liabilities with no demand feature, and CU70 of fixed rate assets. If the entity decides to hedge all of the net position of CU30, it designates as the hedged item liabilities of CU30 or 50 per cent<sup>§</sup> of the liabilities with no demand feature.

AG119 The entity also complies with the other designation and documentation requirements set out in paragraph 88(a). For a portfolio hedge of interest rate risk, this designation and documentation specifies the entity's policy for all of the variables that are used to identify the amount that is hedged and how effectiveness is measured, including the following:

- (a) which assets and liabilities are to be included in the portfolio hedge and the basis to be used for removing them from the portfolio.
- (b) how the entity estimates repricing dates, including what interest rate assumptions underlie estimates of prepayment rates and the basis for changing those estimates. The same method is used for both the initial

<sup>\*</sup> The Standard permits an entity to designate any amount of the available qualifying assets or liabilities, ie in this example any amount of assets between CU0 and CU100.

<sup>†</sup> see paragraph 49

<sup>§</sup>  $CU30 \div (CU100 - CU40) = 50 \text{ per cent}$

IAS 39

estimates made at the time an asset or liability is included in the hedged portfolio and for any later revisions to those estimates.

- (c) the number and duration of repricing time periods.
- (d) how often the entity will test effectiveness and which of the two methods in paragraph AG126 it will use.
- (e) the methodology used by the entity to determine the amount of assets or liabilities that are designated as the hedged item and, accordingly, the percentage measure used when the entity tests effectiveness using the method described in paragraph AG126(b).
- (f) when the entity tests effectiveness using the method described in paragraph AG126(b), whether the entity will test effectiveness for each repricing time period individually, for all time periods in aggregate, or by using some combination of the two.

The policies specified in designating and documenting the hedging relationship shall be in accordance with the entity's risk management procedures and objectives. Changes in policies shall not be made arbitrarily. They shall be justified on the basis of changes in market conditions and other factors and be founded on and consistent with the entity's risk management procedures and objectives.

AG120 The hedging instrument referred to in paragraph AG114(e) may be a single derivative or a portfolio of derivatives all of which contain exposure to the hedged interest rate risk designated in paragraph AG114(d) (eg a portfolio of interest rate swaps all of which contain exposure to LIBOR). Such a portfolio of derivatives may contain offsetting risk positions. However, it may not include written options or net written options, because the Standard<sup>\*</sup> does not permit such options to be designated as hedging instruments (except when a written option is designated as an offset to a purchased option). If the hedging instrument hedges the amount designated in paragraph AG114(c) for more than one repricing time period, it is allocated to all of the time periods that it hedges. However, the whole of the hedging instrument must be allocated to those repricing time periods because the Standard<sup>†</sup> does not permit a hedging relationship to be designated for only a portion of the time period during which a hedging instrument remains outstanding.

AG121 When the entity measures the change in the fair value of a prepayable item in accordance with paragraph AG114(g), a change in interest rates affects the fair value of the prepayable item in two ways: it affects the fair value of the contractual cash flows and the fair value of the prepayment option that is contained in a prepayable item. Paragraph 81 of the Standard permits an entity to designate a portion of a financial asset or financial liability, sharing a common risk exposure, as the hedged item, provided effectiveness can be measured. For prepayable items, paragraph 81A permits this to be achieved by designating the hedged item in terms of the change in the fair value that is attributable to changes in the designated interest rate on the basis of *expected*, rather than *contractual*, repricing dates. However, the effect that changes in the hedged

---

\* see paragraphs 77 and AG94

† see paragraph 75



IAS 39

interest rate have on those expected repricing dates shall be included when determining the change in the fair value of the hedged item. Consequently, if the expected repricing dates are revised (eg to reflect a change in expected prepayments), or if actual repricing dates differ from those expected, ineffectiveness will arise as described in paragraph AG126. Conversely, changes in expected repricing dates that (a) clearly arise from factors other than changes in the hedged interest rate, (b) are uncorrelated with changes in the hedged interest rate and (c) can be reliably separated from changes that are attributable to the hedged interest rate (eg changes in prepayment rates clearly arising from a change in demographic factors or tax regulations rather than changes in interest rate) are excluded when determining the change in the fair value of the hedged item, because they are not attributable to the hedged risk. If there is uncertainty about the factor that gave rise to the change in expected repricing dates or the entity is not able to separate reliably the changes that arise from the hedged interest rate from those that arise from other factors, the change is assumed to arise from changes in the hedged interest rate.

AG122 The Standard does not specify the techniques used to determine the amount referred to in paragraph AG114(g), namely the change in the fair value of the hedged item that is attributable to the hedged risk. If statistical or other estimation techniques are used for such measurement, management must expect the result to approximate closely that which would have been obtained from measurement of all the individual assets or liabilities that constitute the hedged item. It is not appropriate to assume that changes in the fair value of the hedged item equal changes in the value of the hedging instrument.

AG123 Paragraph 89A requires that if the hedged item for a particular repricing time period is an asset, the change in its value is presented in a separate line item within assets. Conversely, if the hedged item for a particular repricing time period is a liability, the change in its value is presented in a separate line item within liabilities. These are the separate line items referred to in paragraph AG114(g). Specific allocation to individual assets (or liabilities) is not required.

AG124 Paragraph AG114(i) notes that ineffectiveness arises to the extent that the change in the fair value of the hedged item that is attributable to the hedged risk differs from the change in the fair value of the hedging derivative. Such a difference may arise for a number of reasons, including:

- (a) actual repricing dates being different from those expected, or expected repricing dates being revised;
- (b) items in the hedged portfolio becoming impaired or being derecognised;
- (c) the payment dates of the hedging instrument and the hedged item being different; and
- (d) other causes (eg when a few of the hedged items bear interest at a rate below the benchmark rate for which they are designated as being hedged, and the resulting ineffectiveness is not so great that the portfolio as a whole fails to qualify for hedge accounting).

Such ineffectiveness\* shall be identified and recognised in profit or loss.

---

\* The same materiality considerations apply in this context as apply throughout IFRSs.

IAS 39

AG125 Generally, the effectiveness of the hedge will be improved:

- (a) if the entity schedules items with different prepayment characteristics in a way that takes account of the differences in prepayment behaviour.
- (b) when the number of items in the portfolio is larger. When only a few items are contained in the portfolio, relatively high ineffectiveness is likely if one of the items prepays earlier or later than expected. Conversely, when the portfolio contains many items, the prepayment behaviour can be predicted more accurately.
- (c) when the repricing time periods used are narrower (eg 1-month as opposed to 3-month repricing time periods). Narrower repricing time periods reduce the effect of any mismatch between the repricing and payment dates (within the repricing time period) of the hedged item and those of the hedging instrument.
- (d) the greater the frequency with which the amount of the hedging instrument is adjusted to reflect changes in the hedged item (eg because of changes in prepayment expectations).

AG126 An entity tests effectiveness periodically. If estimates of repricing dates change between one date on which an entity assesses effectiveness and the next, it shall calculate the amount of effectiveness either:

- (a) as the difference between the change in the fair value of the hedging instrument (see paragraph AG114(h)) and the change in the value of the entire hedged item that is attributable to changes in the hedged interest rate (including the effect that changes in the hedged interest rate have on the fair value of any embedded prepayment option); or
- (b) using the following approximation. The entity:
  - (i) calculates the percentage of the assets (or liabilities) in each repricing time period that was hedged, on the basis of the estimated repricing dates at the last date it tested effectiveness.
  - (ii) applies this percentage to its revised estimate of the amount in that repricing time period to calculate the amount of the hedged item based on its revised estimate.
  - (iii) calculates the change in the fair value of its revised estimate of the hedged item that is attributable to the hedged risk and presents it as set out in paragraph AG114(g).
  - (iv) recognises ineffectiveness equal to the difference between the amount determined in (iii) and the change in the fair value of the hedging instrument (see paragraph AG114(h)).

AG127 When measuring effectiveness, the entity distinguishes revisions to the estimated repricing dates of existing assets (or liabilities) from the origination of new assets (or liabilities), with only the former giving rise to ineffectiveness. All revisions to estimated repricing dates (other than those excluded in accordance with paragraph AG121), including any reallocation of existing items between time periods, are included when revising the estimated amount in a time period in accordance with paragraph AG126(b)(ii) and hence when measuring effectiveness.

IAS 39

Once ineffectiveness has been recognised as set out above, the entity establishes a new estimate of the total assets (or liabilities) in each repricing time period, including new assets (or liabilities) that have been originated since it last tested effectiveness, and designates a new amount as the hedged item and a new percentage as the hedged percentage. The procedures set out in paragraph AG126(b) are then repeated at the next date it tests effectiveness.

- AG128 Items that were originally scheduled into a repricing time period may be derecognised because of earlier than expected prepayment or write-offs caused by impairment or sale. When this occurs, the amount of change in fair value included in the separate line item referred to in paragraph AG114(g) that relates to the derecognised item shall be removed from the statement of financial position, and included in the gain or loss that arises on derecognition of the item. For this purpose, it is necessary to know the repricing time period(s) into which the derecognised item was scheduled, because this determines the repricing time period(s) from which to remove it and hence the amount to remove from the separate line item referred to in paragraph AG114(g). When an item is derecognised, if it can be determined in which time period it was included, it is removed from that time period. If not, it is removed from the earliest time period if the derecognition resulted from higher than expected prepayments, or allocated to all time periods containing the derecognised item on a systematic and rational basis if the item was sold or became impaired.
- AG129 In addition, any amount relating to a particular time period that has not been derecognised when the time period expires is recognised in profit or loss at that time (see paragraph 89A). For example, assume an entity schedules items into three repricing time periods. At the previous redesignation, the change in fair value reported in the single line item in the statement of financial position was an asset of CU25. That amount represents amounts attributable to periods 1, 2 and 3 of CU7, CU8 and CU10, respectively. At the next redesignation, the assets attributable to period 1 have been either realised or rescheduled into other periods. Therefore, CU7 is derecognised from the statement of financial position and recognised in profit or loss. CU8 and CU10 are now attributable to periods 1 and 2, respectively. These remaining periods are then adjusted, as necessary, for changes in fair value as described in paragraph AG114(g).
- AG130 As an illustration of the requirements of the previous two paragraphs, assume that an entity scheduled assets by allocating a percentage of the portfolio into each repricing time period. Assume also that it scheduled CU100 into each of the first two time periods. When the first repricing time period expires, CU110 of assets are derecognised because of expected and unexpected repayments. In this case, all of the amount contained in the separate line item referred to in paragraph AG114(g) that relates to the first time period is removed from the statement of financial position, plus 10 per cent of the amount that relates to the second time period.
- AG131 If the hedged amount for a repricing time period is reduced without the related assets (or liabilities) being derecognised, the amount included in the separate line item referred to in paragraph AG114(g) that relates to the reduction shall be amortised in accordance with paragraph 92.

IAS 39

AG132 An entity may wish to apply the approach set out in paragraphs AG114–AG131 to a portfolio hedge that had previously been accounted for as a cash flow hedge in accordance with IAS 39. Such an entity would revoke the previous designation of a cash flow hedge in accordance with paragraph 101(d), and apply the requirements set out in that paragraph. It would also redesignate the hedge as a fair value hedge and apply the approach set out in paragraphs AG114–AG131 prospectively to subsequent accounting periods.

#### **Transition (paragraphs 103–108C)**

---

AG133 An entity may have designated a forecast intragroup transaction as a hedged item at the start of an annual period beginning on or after 1 January 2005 (or, for the purpose of restating comparative information, the start of an earlier comparative period) in a hedge that would qualify for hedge accounting in accordance with this Standard (as amended by the last sentence of paragraph 80). Such an entity may use that designation to apply hedge accounting in consolidated financial statements from the start of the annual period beginning on or after 1 January 2005 (or the start of the earlier comparative period). Such an entity shall also apply paragraphs AG99A and AG99B from the start of the annual period beginning on or after 1 January 2005. However, in accordance with paragraph 108B, it need not apply paragraph AG99B to comparative information for earlier periods.

IAS 39

## **Appendix B**

### **Amendments to other pronouncements**

*The amendments in this appendix shall be applied for annual periods beginning on or after 1 January 2005. If an entity applies this Standard for an earlier period, these amendments shall be applied for that earlier period.*

\* \* \* \* \*

*The amendments contained in this appendix when this Standard was revised in 2003 have been incorporated into the relevant pronouncements.*